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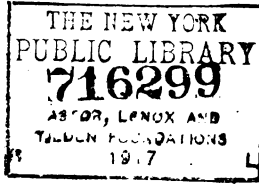
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## IN MEMORIAM.

In the death of its late President, Dr. Hamilton Wright Mabie, the National Institute of Social Sciences has sustained a heavy loss. This has been shared to some extent by all the American people and by the entire literary world.

Dr. Mabie's writings have proclaimed him one of America's Immortals. Moreover his unfailing courtesy, his affability, his great personal charm, his idealism, his sympathetic attitude of mind endeared him to all who came into personal relationship with him. In present days, when so many apparently delight in scoffing at American standards, American commercialism, American worship of Mammon, it is comforting to be able to point to such an American as Dr. Mabie. He not only typified our highest thought and our best feeling, but so convincing was he in his public addresses, that when he lectured on "American Ideals" or on "Character and Life," he invariably carried his audience to greater heights and left them with a more sincere and exalted patriotism, with nobler aspirations, and with firmer convictions as to their duties and responsibilities.

Dr. Mabie, because of his scholarly attainments and charm was always in great demand as a speaker, presiding officer, or guest of honor at social functions. He gave of himself generously to aid many a good cause. The memory of his earnest co-operation with the aims of the National Institute of Social Sciences will ever be a spur to guide the directors to their goal.



## FOREWORD

BY IRVING FISHER  
PRESIDENT OF THE INSTITUTE

The National Institute of Social Sciences stands for the application of scientific methods to the betterment of society. Science as yet scarcely realizes its high mission and its golden opportunities to emancipate mankind from its great curses—war, disease, degeneracy, vice, crime, poverty and political corruption. Its opportunities are now being brought prominently before us in diverse ways by the great world war.

We have long suffered, especially in America, from the lack of great, scientifically conducted reform movements. On the one hand, the scientific world has too often maintained the academic attitude of aloofness from public affairs, while, on the other hand, unscientific nostrums have been proposed and employed, often aggravating the social diseases they were warranted to cure.

The Institute stands for the substitution of scientific leadership for unscientific leadership. Even when unscientific leaders happen to be right, they cannot render the most effective public service. To take one instance out of many, in the anti-alcohol movement the merely emotional reformer of a generation ago accomplished little, but as soon as the modern laboratory turned toward the study of alcohol, the anti-alcohol movement began to go forward by leaps and bounds. Physiologists should long ago have made such studies as have recently been made by Benedict, but they held aloof because of the odium attached to the movement as a result of unscientific leadership. So far as they exerted any influence, they exerted it in the wrong direction by jeering at the uneducated reformers. They even exhibited some cowardice, preferring to condone fashions, rather than oppose them. Instead of scientifically measuring the evils of alcohol they emphasized the fact that, under certain conditions and definitions, "alcohol is a food."

In order that science shall impartially, courageously and with deliberate intention provide the exact results of research for the use of all mankind, its services must be honored and encouraged. The Institute, I believe, has a unique opportunity to help very substantially toward providing the needed recognition for such services. One of the aims of the proposed organization committee is to work out plans to this end.

**REPORT**  
**OF THE**  
**FOURTH ANNUAL MEETING**  
**HELD AT**  
**THE HOTEL ASTOR**  
**NEW YORK CITY**  
**JANUARY 19TH, 1917**

JOHN H. FINLEY, LL.D.  
VICE-PRESIDENT OF THE INSTITUTE, PRESIDING

"THE DRAMA OF TO-DAY"  
WILLIAM LYON PHELPS, PH.D.  
YALE UNIVERSITY

GOLD MEDALS AWARDED TO  
GEN. WILLIAM CRAWFORD GORGAS  
SURGEON-GENERAL, U. S. A.

HON. JOHN PURROY MITCHELL  
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CLEVELAND, OHIO

PRESENTATION MEDALS AWARDED TO

HON. MADISON GRANT  
MISS JANE A. DELANO  
E. H. SOTHERN, ESQ.

ELECTION OF OFFICERS

## OPENING REMARKS

BY JOHN H. FINLEY, LL.D.

LADIES AND GENTLEMEN AND MEMBERS OF THE INSTITUTE:  
I open this meeting in the absence, the very regrettable absence, of our distinguished President, Dr. Butler, who has been called over into a neighboring State, in an interstate service. He is a sort of an exchange professor to-day, taking the place of Professor Phelps, who has come to us.

In the absence of President Butler, it has fallen to me, under the omniscient guidance of Dr. Curtis, as one of the Vice-Presidents, to preside on this occasion. It is usually not considered much of an honor to be a vice-president, and it is less of an honor, I suppose, to be one of fifty vice-presidents, but it is really an honor to be selected from the fifty, and such a fifty as we have, to preside on this occasion. I therefore accept this honor, and shall try to make the most of it.

I can't take up my official duties without giving expression to a thought that is uppermost in my mind, the thought of the loss of our first president, Dr. Hamilton W. Mabie. I am sure that loss is felt by all of us. I heard him once say that he was not a man of genius in letters. He said that he was simply a signboard, as I remember he put it, along the road that pointed others to the place of immortal letters. That perhaps was not quite a just appraisal of himself, but I like to think of his life as being a signboard to the qualities that we most desire to have incarnated in American life. I am particularly glad that before he left the earth, he went out to the Far East, out to Japan, and that they know there what is our highest type of American citizenship.

## THE INTRODUCTION OF PROF. WILLIAM LYON PHELPS

BY DR. JOHN H. FINLEY

I have now the rare pleasure of introducing to you Professor Phelps. I heard him long, long ago. It seems to me that it was in another incarnation, a thousand years ago, but if I should live a thousand years, I should still want to be hearing Professor Phelps, and I am glad that I have the good fortune to be here this afternoon. I couldn't think of his entire name when I was trying to present him a few moments ago. I am told that when he was elected to a professorship at Yale University the vote was unanimous, though one man felt he must make some protestation. (I suppose that he was a characteristic New Englander.) He said that of course he was in favor of Mr. Phelps but he did wish the boys didn't or wouldn't call him "Billy." Whereupon Professor Sumner, who used to be prominently connected with the "mother" of this Institute, the American Social Science Association, rose and said that he thought that wasn't a serious objection, as he himself had been know as "Billy" for many, many years.

I can't, in this serious environment, introduce him in that way, but if I should follow the instincts of my heart, I should do so. As it is, I must follow the instruction of the program and introduce him to you as Professor William Lyon Phelps, of Yale University, who will speak on the subject, "The Drama of To-day."

## THE DRAMA OF TO-DAY

AN INFORMAL ADDRESS BY WILLIAM LYON PHELPS, LAMPSON  
PROFESSOR OF ENGLISH LITERATURE, YALE UNIVERSITY

LADIES AND GENTLEMEN: I am very glad indeed that President Finley alluded as he did to Dr. Hamilton W. Mabie, because, like an infinite number of other men, I had the pleasure of knowing Dr. Mabie very well, and I shall never forget the kindliness, the sincerity and beauty of his character. If we can't all write as well as he, if we can't all have the knowledge and culture that he possessed, we can, at any rate, attempt to follow afar off the wisdom, sweetness, generosity and purity of such a man.

There is no reason why anybody should worry very much at any time about the condition of the drama. There is no reason especially today why people should be alarmed when we hear on all sides denunciation of the present condition of the stage and the present condition of the drama, because so far as I can find out, reading back in history, there never has been a period in history when many of the critics of that age didn't condemn unsparingly the state of the drama of that particular time.

I suppose if we went back through all human history and selected one year when the world's drama reached its high-water mark, it would be about the year 1607. In that year, Macbeth, King Lear, Hamlet, and Othello had been produced. Ben Jonson was at the very height of his power. Beaumont and Fletcher, Heywood, Dekker, Middleton, Webster were all writing. And yet in that year Ben Jonson said that the English drama had sunk to the very depths of degradation, and nobody cared for literature or poetry on the stage. All that the people cared about, according to Jonson, was the lowest form of filth. That is remarkable testimony from a remarkable person. He didn't retract from that position, for again in 1610, he repeated almost the same words.

A hundred years from then, Richard Steele, in the prologue of one of his comedies, stated that nobody cared for anything on the stage except scenery. He said that poetry and drama and literature had vanished, and that the stage carpenter had usurped the functions of the poet.

I like to remember a more hopeful prophecy. The late Bronson Howard, one of the finest men that America has ever produced in the history of our stage, just before he died, gifted with that power of prophecy which the Greeks used to think came to them at the moment of death, stated that the next great movement of literature would be in the drama. He said, "The waters of our Nile are rising." The English-speaking drama of to-day is not like the morning star but the sunrise. I would go so far as to say that during the last twenty-five years more good dramas have been written in the English language than during any preceding twenty-five years since the death of Shakespeare in 1616. As that statement is so startling, I am going to repeat it, hoping that it may be remembered—it ought to be. I say that since the year 1616, when Shakespeare died, we cannot select any one period of twenty-five years when so many good plays were written in the English language as during a period, say, from 1891 to the present moment. I should be very glad to have somebody challenge the statement and have it out right here and settle it, because I know what I am talking about in this particular instance.

Besides dramas written more in the old school, like the dramas of Henry Arthur Jones and Arthur Pinero, we have had such extraordinary writers as Oscar Wilde, Bernard Shaw, J. M. Barrie, John Galsworthy, Arnold Bennett. The American stage, while we can't show anything so good as the English stage, has, of course, since 1890, seen practically the whole career of Clyde Fitch, such plays as "The Climbers," "The Girl with the Green Eyes," "The Truth" and "The City"; Augustus Thomas' play, "The Witching Hour"; Eugene Walter's play, "The Easiest Way"; Moody's "The Great Divide," and a number of other American plays that at any rate are high in intention and often excellent in achievement.

Then, everybody who sits in this room has seen the beginning, the rise, and the fruition of the Irish drama, some-

thing that was unheard of before twenty-five years ago.

I am in a rather hopeful mood. That doesn't mean, of course, that our drama ought not to be a great deal better than it is. Let us see exactly what it is. The subject is "The Drama of Today," and by that I mean not the drama of last year or last century or even last week, but today. This evening, if we had no other engagement, we have our choice of forty-four theatres in New York. I divide these theatres, somewhat arbitrarily, into tragedy, melodrama, comedy, farce, comic opera, grand opera and vaudeville. I regret to say that by comic opera we have to include musical comedy. Of course, there are great differences even in so-called musical comedy, but I consider the ordinary girl-and-music show about as poor a way to spend an evening as one can imagine, whereas the comic opera, which I hope will come back some day, is one of the most beautiful forms of musical art. Only last week I was in Buffalo and found Victor Herbert trying out a new comic opera called "Hearts of Erin," and when that comes to New York, if none of you have seen it yet, you have a most delightful surprise awaiting you. It carried me back to the days of "The Serenade" and "Robin Hood." It is full of charm and beauty and refinement and loveliness, just what a comic opera should be. And by "vaudeville," I mean, of course, the music halls, variety shows, and all entertainment of that sort.

In this list of forty-four theatres we find nothing that can be technically called tragedy. Tragedy is becoming obsolete. Of melodrama there are three, of comedy twenty-two, of farce there are four, of musical comedy there are seven, of grand opera one, and of vaudeville or variety shows seven.

I have kept tab on this thing now for about twenty-two years, and this statement that I have just read you, as a bank president would say, is a fine statement. It shows, on the whole, an excellent condition. Now, with forty-four performances to-night, and twenty-two of them comedy, you have about as good a condition of affairs as you can possibly hope for. By comedy, of course, I don't mean a funny play necessarily, but I mean a play that is a serious attempt to represent human action in rational situations, that is, to represent life as it is, and every healthy drama should have a

larger proportion of comedy than of anything else. If you could go back with me twenty years, you would find that the proportion of comedy was not nearly so great. You would find that the vaudeville shows greatly exceeded the comedies in number. You would find far more melodramas than only three, far more farces than only four.

What is the reason for this condition? The answer is, of course, the moving pictures. That is one of the best things the "movies" have done. I am not one of those who are very much worried about the "movies." I think the managers of theatrical houses are the ones to worry about the "movies." The "movies" have driven farce and melodrama from the stage, and the reason is simple. Why should you pay two dollars to see somebody hit another man in the face with a piece of custard pie, when you can see Charlie Chaplin do it for ten cents? Nobody likes farce better than I do occasionally. It may be a damaging admission, but even now when somebody pulls a chair from under another person about to be seated, I cackle like a fool. But I do not think that such things make a severe strain on the intellect. I don't think one ought to go to them all the time. I don't think that they should usurp a large proportion of dramatic output.

The same is true of melodrama. There were ten or fifteen melodramas on the list in New York in 1900. Why should you pay two dollars to see "Nellie, the Beautiful Cloak Model," or "Wedded, But No Wife," when you can see the same thing for five cents? As a matter of fact, in the five-cent performance you are at a great advantage because you don't have to hear the voices.

Even the variety show has been unable to compete with the "movies." You know about what the average variety show consists of. Two people come forward dressed as eighteenth century butlers. One advances to the right of the stage—"I"; one advances to the left and puts a "I" there. A woman comes forward who forty years ago may possibly have had a voice and she sings a sentimental ditty. The splendid thing about the variety show is that if any particular number is depressing, you know it can't last long. That awakens confidence.

Then the curtain falls. You have II—II. And then a family come out with an exotic appearance. One of them is middle aged and has a large jowl. He holds the rest of them. They swing out, forming the family tree. The branches fall, and then the small boys and girls turn flip-flaps across the stage. Then the entire family tree is exhibited, then all turn over, and depart.

III—III. A man flips up a silver dollar and catches it in his eye—must have taken considerable practice.

IV—IV. A lady comes out with some trained cats. And so on.

Now, these things are entertaining, but they involve no serious strain on what we are pleased to call our minds, and even they have fallen before the rage of the "movies." I mean that the "movies" have driven from the legitimate stage the things that have nothing but amusement or excitement as their reason for existence. The real drama can't possibly compete with the "movies" for a moment, if it competes simply on the score of excitement or entertainment. Therefore, the real drama, without being a bore or depressing, has to furnish something approaching idea as well as entertainment.

Even with this condition of affairs, we are far behind in America, very far behind the conditions that prevail in Germany and France. When I talk about Germany and France, I mean the conditions that prevailed before August, 1914, and nothing that I say about either Germany or France has anything to do with the war or with any partisan aspect at all. The theatre is much greater than any war that ever existed. This war is transitory. After it has passed off and they have all the people buried, the theatres will go on just the same. Dramatic art is eternal.

I am going to give you a list of the plays I saw one week in Paris. As I look back upon it, I feel like congratulating myself, because that week I was very ambitious to see the classical plays. If I had multiplied myself by ten, I could have seen ten times as many plays. Sunday morning in Paris was the pleasantest moment of the whole week, because Sunday morning the program of the theatres for the week was published. That doesn't excite one particularly in New York, but in Paris, it is immensely interesting because it changes

weekly. In *one week* in Paris, I saw two tragedies by Racine, one tragedy by Victor Hugo, one drama by Dumas, one comedy by Regnard, one comedy by Goldoni, one comedy by Augier, one contemporary piece by Brieux, two comedies by Molière. The play by Brieux was "Blanchette," and I told him that I thought "Blanchette" was the best play he had ever written. He said, "Yes, but it has no particular application for America." "On the contrary," I said, "it has a very particular application to America, while 'Les Avariés' has practically no application to America at all." "Blanchette" deals with the problem of what is going to become of our high school girls. If you don't think that is a problem, you haven't thought on the subject of education at all, or on modern social conditions. That is the question that is treated by Brieux in this comedy.

In Berlin in one week, I had Shakespeare's "Troilus and Cressida," something which, to the best of my knowledge, had never been played in America until the Yale undergraduates enacted it last June. Then, I saw Maeterlinck's "Monna Vanna," Ibsen's "Lady from the Sea," "Die Räuber," "Johannisfeuer," "Elektra," "Der Strom," "Zäpfenstreich," "Lady Windermere's Fächer," "Götz von Berlichingen," "Salome," "Der Fliegende Holländer," "Die Fledermaus," "Minna von Barnhelm" and "Des Meeres und der Liebe Wellen."

Well, I was in Boston, I think last year, and I picked up the *Transcript*, and I will read the entire list of plays that were coming to Boston: "The Traveling Salesman," "The Queen of the Moulin Rouge," "Is Matrimony a Failure?" "The Builder of Bridges," "The Midnight Sons," "The Man from Home," "The Man Who Owns Broadway," "St. Elmo," "Tom Moore," "East Lynne," "Billie Burke's Foolish Factory," "Ma Gosse," "The Cosey Corner Girls," "The Gay Masqueraders" in burlesque and specialties, "Vanity Fair Company" in two burlettas and specialties.

One good thing about the old-fashioned theology was that it made people uncomfortable, it convicted them of sin. If I could only make other Americans as ashamed of our country as I am, from the standpoint of art, something might be done.

It seems singular that in this country everybody that I know is dissatisfied with his salary or dissatisfied with the high cost of living or dissatisfied with the climate or with the President of the United States, and so few people are dissatisfied with themselves.

Now, if we could only realize that from the standpoint of dramatic art, as compared with Germany, we are barbarians! From the standpoint of dramatic art, Germany is so far ahead of America, that there is no comparison at all.

Mr. William Archer, a great English dramatic critic, and a very loyal Englishman, of course, says that during this war Germany has maintained her high standard in the drama, whereas in London it has sunk to such a depth of degradation that one of their own generals had to protest against the filth and indecency that was handed out in the London theatres to the soldiers coming home. Mr. Archer, in a letter to the *New York Nation* gives a list of English plays now produced there. The titles, I think, will indicate something as to their character: "High Jinks," "Pell Mell," "This and That," "A Little Bit of Fluff," "Ye Gods!" "Some," "The Bing Boys Are Here," "Look Who's Here," "Razzle Dazzle," "The Girl from Ciro's." When a nation is at war, there isn't any particular reason, it seems to me, why art should sink to such depths as that.

A little while ago, I stood on a street corner in a certain town and watched the automobiles go by. I am quite certain there were more Ford cars in that town than there were inhabitants, because there were a great many more machines on the street than people on the sidewalk. I think it is admirable that men of science have been able to give us so many comforts, but I couldn't help thinking how much closer the automobile is to national life in America than the drama is, and how in Germany it is just the other way around. The drama is far closer to national life in Germany than the automobile. In America we think far more of physical luxuries than we do of spiritual necessities, and we never shall improve until we realize the condition that we are in. Isn't that so?

Suppose, for example, that in America physical luxuries could be monopolized. Suppose if a person wanted to use an automobile, he must live in Minneapolis and all people that

were not in Minneapolis were not allowed to use automobiles. Suppose only the people who lived in Philadelphia could have electric light in their houses. Suppose only the people who lived in Buffalo could have steam heat. How long would the people of the country stand that? They wouldn't endure it for a moment.

But, what is the condition of the drama? An excellent play by Mr. Barrie or Mr. Galsworthy or Mr. Shaw comes to this country. It is produced at one theatre in New York City. If anybody who lives in Buffalo or Cincinnati or Cleveland or Detroit or Chicago or San Francisco wants to see that play, he has to travel all the way to New York, and then he is lucky, of course, if he is able to get good seats. He has to wait a couple of years probably before it will come his way, and after the expiration of two years, the play may or may not be taken on the road, and it may or may not visit any one of these cities. And still we continue to endure that!

What is the situation in Germany? The situation in Germany is this—the moment any important play, original or imported, is put on at any one of the great cities, I mean, Munich or Berlin or Cologne or Breslau or Leipzig or Dresden, and that play is a success, within a week every single town in Germany is producing that play. What does that mean? It means that all the intelligent inhabitants of the German Empire are seeing the same play at the same time, and all talking about it, and reading the criticisms at the same time. That is what I mean by saying that the drama is close to the national life. If you should say to the German that there should be only one theatre, the Lessing Theatre in Berlin, that should have the right to a certain play, he would think it incredible; he couldn't imagine a condition of affairs where the whole country wasn't free to share in the beauty of art.

In Paris, they have a great many so-called high-school matinées. I used to go to those. Every seat in the house sold out for two francs fifty. A distinguished literary man gives a little talk, and then the best actors in Paris act a play by Molière or Racine. The house is entirely filled with high-school boys and girls. Almost all of them have copies of the text.

Wouldn't it be wonderful if all over this country those of us who are teachers, high-school teachers, could say to the boys and girls, "We have finished the play, 'Julius Cæsar.' Go to the theatre next Thursday afternoon and you will see the play. When you come back, we will discuss it."

The only way you can improve matters is to have a stock company. The stock company will come in time, but I wish it would come soon. There are a great many advantages about the stock company for the actors themselves. I don't believe that actors are any worse than other people naturally, because I think we are all naturally bad; but take an actor who is on the road and who appears in a different town every night, and who is in that town from ten o'clock in the morning until midnight with nothing to do except between seven and eleven in the evening. He has no responsibility, nobody knows or cares what he does. I wonder how many of our respectable business men would survive that ordeal a couple of years. I was talking with a man in Germany in 1904, and he said, "I have just signed a contract at the Hof Theatre that holds me here with this company until 1919." What did that mean? It meant that he had a home in Munich. His children could grow up there and go to school there. He was just as much a member of society as the college professor, and had a right to be. When I used to go out to tea at the college professors' houses, I found the actors and actresses there, too. They were welcome, for they were ladies and gentlemen, as they ought to be, and they felt the responsibility of citizenship. It is a dreadful thing to see so many young girls and men go to the devil every year.

Another remarkable thing about Germany is that the Germans are the only people in Europe who are entirely willing to sacrifice the evening meal on the altar of art. I was very much shocked to see in the New York *Evening Post* last evening, a paper that is supposed to show us all the road to culture, a criticism of "Die Meistersinger." "Die Meistersinger" was sung night before last at the Metropolitan Opera House—and there is something, of course, that America has a right to be proud of! We have the greatest opera company in the whole world, and the greatest distinction for any singer in the world is to be a member of the Metropolitan Opera. The

critic of the New York *Evening Post* the other night was angry because it lasted four hours (it lasts nearly five hours in Germany). "They used to make it last only three hours and a half, and thus," said the critic, "everybody was able to eat his dinner comfortably." In other words, the dinner is more important to the average person than the opera. But, do you think it is a crime for a man to produce properly one of the greatest masterpieces that ever was written and thus cut off a small section of people's dinner?

Now, in Germany, of course, the operas begin at six o'clock and the plays begin at half-past seven. You don't feel when you go to an opera or play there that you are going on a spree. We used to take a cup of tea and a roll about half-past five and then we went to the opera at six o'clock. Instead of going there soggy and sodden with an enormous dinner in us, instead of at the very start being so stupified that it is impossible to appreciate good music, we went there alert, lively, in good spirits. Then, when the opera was over, we went into a café, and we were in bed at eleven o'clock. We went to the theatre five nights a week for six months and lived a sober and godly life. I couldn't possibly do that here, you know.

I remember when the question came up in London, so many people coming to the theatre late (the dinner gets later and later there), they finally sent out word to all the managers in London, "At what hour should the curtain rise? Should it rise at six or ten? Should we put the dinner first and art second, or vice versa?" To this Bernard Shaw replied, "For the majority of English plays, the curtain should not rise at all."

There is only one way to listen to music, there is only one way to listen to an opera, there is only one way to listen to a good play, and that is to listen positively and not negatively. If a business man was sitting in his office and another person came in and said to him, "Here is a proposition, which, if successful, will make a hundred thousand dollars for you," the man wouldn't sit back in his chair half asleep, inattentive, and thinking of last Saturday's golf game. No, he would listen with all the alertness that he had. That is exactly the way one must listen to good music or to high art or to any-

thing that is valuable in order to get an adequate return. Now, the Germans have their drama and their opera arranged in such a way that people who are doing the work of the world can get up the next day and go about their business.

We ought to remember that the finest stock company in the world is in Moscow in Russia. When Mr. Stanislavski started the Artistic Theatre they lost money for seven years. Then they broke even. Now they are making money. His rules are more drastic than any other company has ever had. One can only smile when one thinks what would happen if any stock company should set down any such law as that in America. Once in a while some immensely popular actor will send word to him that he would like to join the company. Mr. Stanislavski replies, "We shall be very glad to have you in our company, and we shall be glad to have you at once, with the understanding that you do not appear on the boards for one year. After a year, we will let you take some minor rôle." He believes in team-play. Team-play is just as important in an opera company or a theatre company as it is in football. The players must understand each other. The greatest compliment this company ever received was when Maeterlinck wrote the "Blue-Bird" and sent it up to Moscow for its first presentation. The play was written in French, of course, but the first performance in the world was in Russia at the theatre in Moscow, and from there it spread all over the world.

One of the reasons why I am sure that the drama is going to be what it already has begun to be, the greatest literary manifestation of our age (we shall all live to see that, I think) is because the best writers all over the world, during the last twenty years, have been in the main dramatists. Who is the greatest living writer in French? Why, I think Rostand. If you don't think he is the greatest, then take Maeterlinck; in Italian, D'Annunzio; in German, Hauptmann, and second, perhaps Sudermann. Who have been the greatest writers in the Scandinavian countries? Ibsen, of course, and Björnson and Strindberg, all three dramatists. And not only that, but men who have attained distinction in other forms of literary art have turned their attention to the drama, being drawn in exactly as they were in the days of Elizabethan England. I remember when twenty-five years ago some prominent

dramatist said that the last thing in the world a literary man wants to do is to write plays, that plays should be written by engineers and carpenters and the literary man should keep out of the theatre. But look at Mr. Barrie, a thoroughly successful novelist who became later a powerful, original genius in the drama. The other night I was seeing this beautiful play of his, "A Kiss for Cinderella," a most exquisite, beautiful, imaginative, original thing, and I thanked God that I was alive, that I was the contemporary of such a man. Bernard Shaw wrote novels, and later turned his attention to plays. John Galsworthy was an accomplished, distinguished novelist before he wrote any plays. The same was true of Arnold Bennett. You will find that that is the case all over the world.

That has been followed by a very interesting phenomenon—the publication of plays, which is of immense importance to those of us who love art on the stage. In 1897, Henry James, writing from London, said, "That no one ever *does* read a play has long been a commonplace of the wisdom of booksellers." But, in the twentieth century, the most notable fact among booksellers is the publication of dramas. Every publisher in New York is anxious to get plays on his list, plays written by Englishmen or Americans or translated from the Russian and the German, the French and the Italian.

The most important date in the history of the drama in America, I think, is December 15, 1908, when the New Theatre was founded. President Finley was there, I remember, and made an address that I have no difficulty in remembering. The New Theatre was a failure financially, but just as a thing may be a great financial success and yet the public get no benefit out of it, so there may be a financial failure that will leave blessings in its wake. For two years this country saw a stock company the like of which had never existed before. Those people in the New Theatre produced Shakespeare, produced Galsworthy's "Strife," produced a number of modern comedies, serious plays and classical plays in a manner entirely new to this country. Nothing had ever been seen like it before. They brought that company to a standard where it compared honorably with the House of Molière in Paris and with the Neues or Kleines Theatre in Berlin. That

was a great achievement; it was a wonderful thing, and results have come from it. At the Little Theatre, which the New Theatre made possible, you always see exquisite acting and sometimes a good play. Last year Grace George gave Shaw's "Major Barbara" in New York in excellent fashion. Granville Barker came to this country and gave us Bernard Shaw's "Androcles," "The Doctor's Dilemma," and Shakespeare's "A Midsummer Night's Dream." Experiments have been made constantly in American dramatic art since the New Theatre was established and that owed their success directly to that. Last year we had an American play, "The Unchastened Woman," by far the ablest, most original, powerful American play of the whole season, which you probably would never have had if there hadn't been this renaissance in the theatre.

So, I am hopeful for the future, if you can get the proper conditions. And I am hopeful, too, because we lived down some tendencies that looked very dangerous. I remember hearing a great many years ago a sermon by Phillips Brooks from the text, "Israel saw the Egyptians dead upon the seashore." He said, "There are some things that we survive, there are some terrors that can terrorize us no longer." And so, when I think of some of these tendencies, it is pleasant to think that they are dead. One of them was the sudden advance in the price of seats in the theatres that happened toward the end of the nineteenth century and that threatened to destroy intelligence in the audience. Everything during the last five years has risen except the price of seats in the theatre, which is a very interesting fact. Why is it? It is because the managers saw that intelligence in the audience, which is never too common in America, would after a while be conspicuous by its total absence. The reason is that for some reason which I don't understand Almighty God has not given the majority of intelligent people very much money. I don't mean that rich people are not intelligent. They are often very intelligent. It is just the other way around; the majority of intelligent people aren't rich. Therefore, when an intelligent person buys something, he has to give up something else; he can't always translate his wishes into facts. Suppose a man and his wife and two daughters.—They live in New

York and want to go to the theatre in the evening.—It is necessary for them to get there and get back, and if that man manages to make the trip and buy the seats with less than ten dollars, he is a financier. And what has he seen? Perhaps some trivial or worthless play. With ten dollars he knows he could buy a set of good books that would be a permanent asset to his library for three or four generations. For that reason, the intelligent man isn't going to attend the theatre often.

There is another evil that has come and gone—this was killed by the American sense of humor, a blessed and conservative force. I am referring to the sudden rage for the dramatization of popular novels. That began in 1894 with "Trilby" and the "Prisoner of Zenda," reached a climax in 1900 and died about 1903. I could give a list of forty books that were dramatized about 1900 which you would remember. The moment a story became immensely popular, it was dramatized, not because it was dramatic but because the people wanted to see what every one was talking about made incarnate on the stage. They even dramatized "Beside the Bonnie Briar Bush"—they dramatized everything, every book that sold well. Every manager in New York employed a man armed only with scissors and paste, who reduced popular books to the stage. In one case a manager said, "I have so much confidence in my man that I am certain he can dramatize the city directory." I remember a cartoon at the time of Dr. Johnson sitting talking with Boswell. He said, "What a pity, doctor, that you didn't live in the twentieth century, because then your great dictionary would have been dramatized!" That wave of dramatized fiction almost destroyed American dramatic art.

It was not one whit better either in motive or in results than in making actors out of the following persons: have you ever heard of these persons? John L. Sullivan, Robert Fitzsimmons, James J. Jeffries, James J. Corbett, Kid McCoy, Terry McGovern, Battling Nelson, Jimmy Britt. Who are these people? They are actors, every one of them. Every one of those men got a far larger weekly salary than Booth ever received in the whole history of his career. Did these men know anything about the great art of acting? Did they

understand anything of the art of mimicry, of burlesque, of comedy? No, but they were characters that everybody knew. They were getting enormous sums for appearing on the stage for exactly the same reason that "Beside the Bonnie Briar Bush" was put on the stage, and with no better result. I know, because I went to see Robert Fitzsimmons in "The Honest Blacksmith." He was thinly disguised under the name of Bob Fitz. I shall never forget this performance on account of the literary quality of the dialogue. The play was highly virtuous, almost offensively virtuous. The heroine was pursued through the three acts by a designing villain, and about the middle of the third act—as the villain was about to seize her, Bob Fitz, the honest blacksmith, appeared opportunely, caught the villain on the jaw, and rescued the maiden. Now came the literary part of the dialogue. At that precise moment was the climax of the play. She said, "Oh, Bob, God will reward you." "Don't mention it," said Bob. That "Don't mention it" rings in my ears yet.

Something ought to be improved in America beside the condition of the theatres and the condition of the acting. We ought to improve also the status of dramatic criticism. The dramatic critic, in the first place, ought to be absolutely free. He ought to say exactly what he likes and what he thinks. He can't do that in most cases. I remember a play that was produced in Nevada where the dramatic critic set a splendid model for most of our New York critics. He said, "I saw the play last night, and at the end of the first act, if the admission had been free, the actors would have owed the audience money." That was an honest criticism from a fearless man.

I was sorry that case about my friend Walter Eaton, who was one of the best dramatic critics in America, was dropped. I wish very much that case could have come to trial. Mr. Walter Eaton left the *New York Sun*, where he was dramatic critic, and the critic in *Life*, Mr. Metcalfe, said Eaton was kicked out of the *Sun* because the *Sun* wanted to hold onto the advertisements and the people that were publishing advertisements said that unless Mr. Eaton left, they would withdraw the advertisements. The *Sun* brought suit against *Life* for libel. I was sorry that case didn't come to trial, because

that is just the sort of a case that ought to be brought into court.

The New York *Times* has recently had trouble, and the *Times* showed courage. The threat was made that the theatrical advertisements would be withdrawn, and they said, "You can withdraw them right now and we shall not mention any of your plays or any of your companies at all." They stood a chance of losing \$45,000 a year by this stand, and, of course, very few papers could afford to lose that much money. The theatrical advertisements were withdrawn, but in a little while, the producers came back and wanted to put their "ads" back in the *Times*, and said that the critic might enter their houses. Of course, any theatre has a right to exclude any one from the performances; but we should all like to know on what ground, and especially in the case of dramatic critics.

Our dramatic critics in New York would be more respected and what they said would be received with far more interest if we all knew they were free to say what they liked; but even then there should be another reform. There is no reason on earth why a dramatic criticism should appear the morning after a performance. A man writes a play that takes him two years, and a criticism of a column in length must appear the morning after the first night. One dramatic critic told me years ago that he wrote all his criticisms for a New York daily on an elevated train running between the theatre and the newspaper office. The actors who have diligently rehearsed are at the mercy of a man who has to record his impressions in that short time. [Dramatic criticism really does injure or help a play very much.] Suppose every book that was published had to be reviewed the next day, even then the man who reviewed it would have the type before him while he was writing.

In France the critic is invited to a performance given before the regular one, and he is not expected to have a criticism the next day. What we ought to expect the next day is a *news article* stating exactly what the play was and an honest statement of how the audience received it, criticism reserved until Sunday. Then on Sunday let us have a long criticism.

I think the one single day in the twentieth century when I felt happiest about the condition of the theatre, and I love

the theatre, was the morning after the production of Rostand's play, "Chantecler," in Paris. Ladies and gentlemen, do you remember that the production of that play was the next morning the greatest news in the whole world? Do you remember that that play had nothing to do with politics, with war, with nationalism, that it made no local, national or ephemeral appeal, that it was simply a work of art? Yet on the following day in every newspaper in the world, the announcement of "Chantecler" held the place of primacy. A friend of mine in Butte, Montana, sent me the daily paper from there. I don't know how many of you have been in Butte, but for your information I will say that it is not a hotbed of culture. The morning after this play was produced in Paris, not the first column but the *whole first page* of the Butte daily paper was taken up with an account of the production.

If we can't all be professional critics, don't you think we ought at any rate to be amateur critics? Don't you think there ought to be something in the theatre besides mere entertainment? Suppose we really did know something about the theatre—how much more interesting it is to study the actors and the play when we know something about dramatic art. Suppose you saw two people playing chess, and you didn't know the difference between a bishop and a pawn, how inane those two people would appear. One man pushes a piece of wood and gazes triumphantly; the other shows acute signs of distress. I shall never forget the day when I saw Mr. Barrie's play, the "Twelve Pound Look," one of the happiest afternoons of my life, spent right here in a New York theatre; as the play progressed, to see the workings of a great mind behind it, to see how every move, every gesture, every word had intelligence. That is what I mean by going to the theatre intelligently. That is one of the highest happinesses, one of the purest joys we have.

## THE AWARDING OF MEDALS

### GOLD MEDALS

Gold Medals were awarded to William Crawford Gorgas, Surgeon General United States Army; John Purroy Mitchel, Mayor of New York; Michael Idvorsky Pupin, Sc.D., Columbia University, and George W. Crile, M.D., Cleveland, Ohio.

### THE MEDAL TO GENERAL GORGAS

PRESENTATION SPEECH BY WILLIAM M. POLK, M. D.

I believe, sir, that I am expected to explain to Dr. Gorgas and to the audience the reason for this presentation. Dr. Gorgas, or rather Major General Gorgas (I know the Doctor so well that sometimes I forget that he is grown up), the reason that we present you with this medal consists in the fact that you have been one of those men who have used the opportunity of your duty to serve the State in such a way as always to add to its aggrandizement and to its general growth.

So far as the opportunities which have presented themselves to you to prepare yourself for this work, I presume I may be allowed a few moments to explain. Your education had the best possible foundation in a distinguished and a wonderfully well-informed father and mother. In addition to that, you had the opportunity later to pursue your work both at the great university of the South now commonly known as Sewanee, and also at the University of Alabama. Then it came to your mind that it would be well to seek some occupation that might prepare you to enter into the medical service in the army, and so you entered into the medical profession and began your work here in our midst in Bellevue Hospital, and from there you went straight into the army.

Now, the work which has been carried on by you in your army life is so well known that possibly it may be an unnecessary task for me to go into any particulars, and yet it had

such great bearing upon the general condition of things throughout our country that I must be allowed a few moments to enlarge upon that theme.

First you began as most young medical officers did, upon our frontier, our western frontier, which at that time was just about to disappear. Then came an opportunity, the Spanish War, a very brief war, but still one which enabled you to show your special fitness to deal with some of the diseases which threatened the success of the expedition.

After the success of our forces you went to the Philippines, and there you did a noble service, in the way in which you attended your soldiers, your charges, not only in the hospital, but in passing from camp to camp and post to post, oftentimes at the serious risk of your life at the hands of the enemy. Then you returned and found occupation in dealing with the diseases which had long threatened Cuba and Havana, and there began the great turning-point in your career. Acting as Health Officer of the City of Havana, you soon showed that there was a possibility of eliminating entirely that dread disease which was not only so destructive in Havana itself but on our own southern and southeastern coasts. Before leaving there you had thoroughly informed not only your own colleagues but the medical profession at large that there was a possibility of wholly eliminating that disease.

From there your great opportunity presented itself in connection with the creation of the Panama Canal. Now, the word Panama Canal opens such a broad vista, brings such a tremendous picture before one's mind, that it is very difficult to occupy the brief time that is allotted for this brief address to enlarge upon that work. And yet if one considers the dreadful tragedy which preceded your work there and the unsuccessful effort made by the French to establish the canal, on account of the great mortality encountered because of the diseases of that climate, and then sees the way in which you moved into your position there and in a comparatively short time put the same stamp of destruction upon that disease of yellow fever that you had already applied to the case of Havana, and out of that work of yours grew the possibility of building the Panama Canal. I am well aware that there

will always be some sort of disagreement on the part of others who were concerned, that perhaps engineering had more to do with the success of the Panama Canal work than medical science; but it seems to me that there can be small doubt that, after all, the building of the Panama Canal belonged most to the profession of medicine, and particularly to this exponent in the shape of yourself.

Now, not content with proving the efficacy of your plan, you undertook to protect the canal from the entrance of disease both upon the east coast and upon the west coast of South America, because that was the great breeding place of the disease. You began first with a visit to the coast of Ecuador, where, in connection with the government of Ecuador, you endeavored to put into operation certain rules which were designed particularly for the protection of the western end of the canal. After that for a time your efforts were held in abeyance by obstacles which could not at that time be overcome. Meanwhile, the British Government, realizing that there was a region of their own that was being subjected to very grave strain, because of disease, applied to you for some means of overcoming it. I refer to the epidemic of pneumonia existing in South Africa, and particularly in the gold-bearing regions. Taking your own trusted assistants, you made your investigation of that work and established principles that enabled them to very largely overcome, if not entirely overcome, the disease that had crippled vast and immensely important works.

Having finished that work satisfactorily, you then returned, and our government gave you that vote of thanks by its Congress, and that promotion and appointment which gave you a position before the country at large fully in keeping with that which you were entitled to. First, as Brigadier General and after as that of Major General of the United States Army, and Surgeon General of the Army. You now occupy a position which is as full a recognition as the government can give for your great service.

But beyond all that, there is a recognition that lies in the high estimation, in the hearts and minds of your people which is fully equal to any offering that may be presented to you, in

the shape of promotion or in the shape of direct recognition from Congress. Other associations besides our own have recognized the great service that you have rendered as shown in this list of honors which have been bestowed upon you.

GENERAL GORGAS' REPLY

I wish merely to express appreciation of the honor conferred upon me. I may mention a train of thought that passed through my mind as Dr. Polk was speaking. As to how much any man, who accomplishes more or less successful work in life, owes to himself, and how much to his environment. In looking back on my own life, and this seems to me to apply very generally to other people's lives, opportunity plays a very great part. And I always feel, and I feel more particularly so in this case, more or less embarrassment at receiving a medal. It seems to me that I ought to be giving medals to the other people who have given me these great opportunities. To my fellow countrymen in the various positions which I have held, who supported me so well, and who have given me the opportunity of accomplishment. It seems to me much more is due to them, and I think that applies to most men who accomplish, than to the men themselves. With that reservation, I thank the Institute.

THE MEDAL TO MAYOR MITCHELL

PRESENTATION SPEECH BY DR. JOHN H. FINLEY

In the Book of Ecclesiastes it is written that "children and the building of cities establish a man's name." The children of Eli (I am not referring to the Father of Yale), Hophni and Phinehas, have alas disgraced their father through two thousand years and more, and so it is with cities—some have been disgraced by their children. From the time that Cain went out and built the first city of Enoch in the land of Nod, cities have come and gone. The pre-Noahian cities were swept away by the flood, Sodom and Gomorrah were destroyed by fire and brimstone, Tyre and Sidon have become waste places, Athen's myriad mouths are

stopped with dust, and Rome is the tomb of her once proud self. Cities have come, they have blossomed for a day, they have died, they have slept in their own ashes; some have climbed again upon the ruins; but though cities have come and gone, the generic city will persist so long as human beings are social beings. The cities are but the stepping-stones of civilization. To-day we give a badge of honor to the mayor of the greatest city in population, in commerce, and, as a higher authority than myself said, "in the nobility of its enterprise." We give a badge of honor to one who wears the highest honor which this greatest city can give, and it signifies that he has had and that he still has and is doubtless still to have the opportunity to build himself permanently into the city.

To him who has such an opportunity as that, and who has such achievement back of him, this thing we have here to give must seem a slight thing. I cannot make a catalog of what is done. There is a book which tells about it, but so thick that I may ask Dr. Curtis' permission to write some of it into the record, for I can't do more than mention it this afternoon. It would be telling you, in any event, what you already know, if I were to relate the achievements of this alert, keen, fearless man, whom I have seen sitting in the chair of the Chief Magistrate down in City Hall and whom I have also seen in the ranks and in the ordinary tents at Plattsburg, and I have admired in both places. Though I have not always agreed with him in some of his views, as he knows, my admiration passes all that difference.

Mr. Mayor, the appropriation has been made by the Board of Estimate which has been sitting upon your achievement, and it has been approved by a non-partisan council; it is therefore my high honor to give to you the token of this vote of confidence.

#### MAYOR MITCHEL'S REPLY

I am grateful for the opportunity of saying a word of thanks to the members of the Institute, to the committees and to the President for this medal, which I shall treasure, not

only because of the compliment that it conveys but because of the membership from which it comes.

I had been told, Mr. Chairman, when notified that this presentation would occur to-day, that the medal was to be given to me because it had seemed to the members of the Institute that the city administration had displayed some fortitude in some of the situations which had presented themselves to it during the course of these three years, and it was for that that the Institute regarded the presentation of a medal as appropriate.

It seemed to me, and perhaps it is the only word that is appropriate from me to-day, that that attitude of mind constituted something of a commentary upon our democratic life. The work of this administration in the City of New York has been from day to day very commonplace in the discharge of ordinary duties of an ordinary sort, and that crisis should have arisen in the course of that work that called for any particular fortitude, Mr. Chairman, is only due to the fact that in a democratic community a government discharging ordinary duties in an ordinary way will from time to time inevitably confront special interests operating insidiously through special influence to obstruct that course and to defeat those purposes that the people had in mind in electing that government to office, and to bring about results in their own interests that are opposed to the interests of the public. It is a curious thing that men running for public office are asked to pledge themselves and promise that no special interest shall enter into their consideration in the discharge of public duties, and that once in office, if that course be followed consistently, the special interests, in their peculiar activity, creating public opinion in one way or another, will make it appear that the men in government in opposing them are actually opposing the public interests and are acting in their own political interests.

Mr. Chairman and Ladies and Gentlemen of the Institute, I have no doubt that if I interpret aright the purpose of the award of this medal, that your committee and membership had in their minds one particular incident in the course of this city administration, and that was the attitude

of the city administration in insisting that whether it be in private or in public institutions, the care of little children, of dependents, of the feeble-minded, should be all that a great, civilized, cosmopolitan and progressive community like that of the City of New York has a right to maintain, and that whether that course and attitude on the part of the city government was agreeable to those special interests that administer certain of these institutions or whether it was not, that the course of government and the attitude of the administration would be the same, and that that insistence should continue.

It is curious, Mr. Chairman, that a program like that should call for any particular fortitude, and yet it is true that from the time that program was formulated down to this moment, the administration of the city, the Commissioner of Charities and the Mayor have been subjected to misrepresentation, malignment and attack of a most insidious and un-American character, and that it has been in opposing that kind of attack and in continuing the program despite it, if there has been any fortitude exhibited, that it has lain.

May I say merely this, that while attacks and misrepresentation, particularly from those whom a man has a right to consider of his own, are never agreeable or welcome, they are much more agreeable and much more welcome, Mr. Chairman, than would be the consciousness that these twenty-two thousand children, committed to the care of the City of New York as a foster-parent, had suffered by reason of the neglect of the city administration or its failure to stand up and demand for them all the care that they deserve.

I can only say that for the eleven months that remain of the public activities of the members of the present city administration there will be no relaxation in this matter. The same supervision, the same control, the same constant inspection which have brought upon us this feeling of irritation and these periodic attacks will continue until the day that we lay down our public trust, and I feel that when we do so, we will be able to leave office with the consciousness that in this relation there has been a contribution to the social life of the city that will be lasting.

THE MEDAL TO PROFESSOR PUPIN  
PRESENTATION SPEECH BY DR. JOHN H. FINLEY

In the Greek (I hesitate to mention this in the presence of a Greek professor who happens at the moment to be present, but he will correct the record if this is not right) the verb from which we derive our word "poem" meant "to do" or "to make." The poet, in that pristine sense, is the creator, the doer, the maker. We have restricted its use to identify those who create verse, conventional or free, who make literature of the words which we use in our daily life.

But here has arisen a man who, though he is the most practical of scientists, a social physicist I think I may call him, has carried the word "poet" to the loftiest significance. To be sure, his medium of expression is not the foot, the anapestic, dactylic or the trochaic, of the maker of rhythms or rhymes. It is the wave of ether, more subtle than any syllable in man-made prosody, that he commands to the service of human-kind. He has tuned the wireless instrument so that its message may be received without interference from others, he has made it possible to send messages not only through the skies but under the ground, beyond the reach of the blizzard and the sleet, from Washington to Boston, and in a short time, I am told, it will travel underground from New York to Chicago. And again, more wonderful than Shakespeare's Ariel, his Ariel will fly on an instant's notice and in an instant between any two points of this continent. Indeed, he does not confine himself to the earth, for I heard him one never-to-be-forgotten night telling, like a modern psalmist, of the converse of the stars, which reveal, through their spectroscopic alphabet what is burning in their hearts and flaming in their skies millions of miles away.

Here is our true twentieth century poet, whom I am ready to put beside the greatest poet of the narrower definition. I heard him tell not long ago of a pilgrimage that he had made back to his own country, and of his finding one who had made a pilgrimage to the Holy Land. He told this old man, whose name I cannot recall, that there were holy places in America, which this man could not believe. But, there is a dear, yes, I may say, a holy place yonder in that land from which he

has come to bless America. There is no man, I think, to whom I would rather give a medal than to Michael Idvorsky Pupin, son of Servia. I wish we might multiply this bit of gold to succor the people of the country who gave him to us and to the world.

THE MEDAL TO DR. CRILE

PRESENTATION SPEECH BY DR. GEORGE E. BREWER

There has rarely been a duty which I accepted more happily than the one which has been imposed upon me by the Committee on Medals, to request, sir, that you present the Gold Medal of the Institute to my friend and colleague, Dr. George W. Crile, of Cleveland.

Dr. Crile, the reason why the Committee has asked that this medal be conferred upon you is, generally speaking, because of your notable achievements as an investigator, a teacher, an author and a surgeon.

Those of us who are members of the medical profession do not require to be told of the achievements of Dr. Crile, but to many of those who are not of our craft it is only fitting to say that Dr. Crile, reared in scholarly atmosphere, received the Degrees of A.B. in 1884, and M.D. a year or two later. He devoted himself at the very outset of his career to grave scientific work, to the elucidation of those important problems of life and disease which Nature seems almost maliciously to conceal. His first great achievement was the explanation of that dreaded surgical complication called shock. While surgeons of all lands knew shock, they knew its dreadful results, they knew in a general way the effect upon the organism, nothing was known definitely as to its true nature, and very little was known as to its successful treatment. It remained for Dr. Crile, by a series of painstaking, accurate, humane animal experiments, to solve the question for the medical and surgical profession. He told us not only the cause of shock, but he explained the mechanism of shock, he explained Nature's efforts to overcome the deleterious effects of shock, and he gave us a rational treatment which has been adopted in all parts of the world.

Not only has Dr. Crile succeeded in his efforts to explain shock, and not only has he given us a rational treatment for it, but he has gone still further. His next experimental work was in the prevention of shock. Dr. Crile showed that the essential cause of shock was the transmission from the injured area (whether from a severe bodily injury or surgical operation) of the painful impressions to the brain. The reaction of the brain to counteract those influences is always present. It is not only present and active without anæsthesia, but it is present with anæsthesia. And, though the shock is greater without the anæsthesia, no general anæsthetic that is at present in use would absolutely overcome this constantly transmitted stimulus to shock. He found, however, that one anæsthetic, the combination of oxygen and nitrogen-monoxid (laughing gas), could be used for a longer period with less toxic effect than any other. He had solved half of his problem. The other half of the problem was to find out and determine what other method could be carried out so that the painful influences should not be transmitted to the brain. He finally was able, by the combination of the general anæsthesia which was not toxic, and by the local blocking of the sensory impulses, to give us what the world has never known before, a shockless operation. A person debilitated by sepsis, or profoundly injured, could often be rendered an operable surgical subject by the use of this method.

When this was presented to the profession the value of the discovery was hardly appreciated at first. They were slow to accept it. They said, "We have used nitrogen-monoxid before," but nitrogen-monoxid was never used in that way, combined with this method of *anoci-association*.

One of the greatest writers on surgery in the British Empire spoke of this particular discovery as equal in importance to the two other great surgical discoveries of the century; the discovery of anæsthesia by Morton and Simpson, and the discovery of the antiseptic method of wound treatment by Lord Lister; the anoci-association anæsthesia of Crile, he stated, was the third great surgical contribution of the century.

It will be impossible for me at this time to enumerate the other researches which Dr. Crile has carried out, and which have been of almost equal benefit to humanity. I need only

refer to the "rejuvenation" of a method of direct blood transfusion, a procedure which has been known for a hundred years, but for the last seventy-five years had not been used because of the difficulties of transfusing life-blood from one individual into another. No method which had been suggested could be relied upon successfully until Dr. Crile, recognizing the physiological fact that if the inner coating of a blood vessel were attached to the inner coating of a blood vessel in another individual, blood would flow from one to the other without clotting, without risk, without danger. By the means of a very simple device, he brought again into general use one of the most valuable life-saving procedures which is known, that of direct blood transfusion. His researches into the cause of exophthalmic goiter, his perfection of the technique of the operation for goiter, his methods which have extended and given us a larger hope in the treatment of malignant disease, and his improved technique in operations in many other parts of the body I can only refer to by title. Time will not permit me to even describe in a very brief way these contributions which he has made.

His work some years ago attracted the attention of a philanthropist, a gentleman of wealth, who saw that if this work was encouraged, great results would come to humanity, and it was through the generosity of one of his friends in Cleveland that a large institute for surgical research was erected, for which he has been made the sponsor.

He at present holds the distinguished position of Professor of Surgery in Western Reserve University; he is surgical director of the largest hospital in Cleveland, the Lakeside Hospital; he is director of this Institute for Surgical Research. He has received degrees from many sources, particularly the honorary F.R.S.C. of England, given four years ago.

The reason, Mr. Chairman, that we asked for the medal for Dr. Crile is because we, all of us in the profession, recognize in him a master of surgery, a scholarly teacher, a gifted writer, a conscientious, painstaking, accurate and humane investigator, a constructive scientist, one of the most distinguished and successful practitioners of surgery of his age and generation.

## DR. CRILE'S REPLY

MR. CHAIRMAN: I can only express my great appreciation of the encouragement you give in awarding the medal, and I interpret this to mean merely a recognition of the work done by my colleagues for whom I am simply a spokesman, my colleague, Dr. Brewer, and my colleagues at home, and many others who are laboring in our particular field to endeavor, as far as we may, to alleviate human suffering.

## PRESENTATION MEDALS

Presentation medals were awarded to Honorable Madison Grant, Miss Jane A. Delano and E. H. Sothern, Esq.

## THE MEDAL TO MR. GRANT

PRESENTATION SPEECH BY HENRY FAIRFIELD OSBORN, LL.D.

Perhaps one of the most important questions before us to-day is the giving of that hand of inspiration to the young men of this country which will fill them with the spirit of the ideal Greek state, namely that whatever else a man may do, his first duty is to his state, to the community in which he lives. I would that we might impress this on the minds and hearts of every young man of the present generation. If we cannot impress it by example and precept, we may have to impress it by legislation.

As I understand it, this medal is being awarded this afternoon to Mr. Grant because he has given us a fine example of that spirit which should prevail in all young America, namely, that a man must give a large part of his time, his intelligence, his energy and his heart to the community in which he lives and to the country.

It is interesting to trace this impulse back to his Scotch ancestry, to see how it may have been cultivated through graduation at one of our leading American colleges. Yet every day I become a stronger believer in the fact that the impulses that come from within, the hereditary impulses which drive men in certain directions, are stronger than the impulses

which come from without, so I cannot find anything in Mr. Grant's environment which will explain his life so well as the fact that he was born with a desire to do the things which he has been trying to do in our community.

He has been an ardent supporter of one of the great movements of our times, namely of the movement for the conservation of the beautiful streams and forests which our ancestors left to us and which we have done so much to destroy, also of the conservation of wild life in various parts of the United States and Canada. Mr. Grant's name is becoming known wherever the cause of conservation is uppermost, among all English-speaking peoples of this country and of Great Britain.

The second opportunity for service came in connection with the establishment of the zoological park in the City of New York. Mr. Grant was one of the few men, with Theodore Roosevelt, Senator Root and others, who conceived the idea that we should have in New York a zoological society and that out of that society should grow the foundation of a zoological park. It was in that connection fortunately that our paths crossed, when I came to New York twenty-five years ago, and it has been one of the pleasantest associations of my life that we have been hand in hand in pushing that great enterprise which I believe has been continuously on Mr. Grant's mind for twenty-three or twenty-four years.

All of you who are concerned with such municipal enterprises know that you have to overcome, in the first place, a tremendous inertia of public opinion, and especially an inertia of municipal opinion. It takes many years to convince municipal authorities through the pressure of public opinion that such institutions as the zoological park really tend to promote the higher aims of our citizenship and to widen the general education of our people. Mr. Grant's devotion to this cause has been one of the great factors in the production of what we are now proud of as the finest zoological park in the world, not only the finest but the freest park, which more than any other park in the old world or in this country reaches the largest number of people and exerts the largest influence in inculcating a love of nature and an admiration for the marvelous forms of animal life with which our world is endowed.

Probably few of you knew of Mr. Grant's literary efforts until the recent production of a book which has been widely read. For many years he was contributing papers of scientific value on various forms of wild life in North America as a result of his own experiences and travels as a sportsman in all parts of the United States and Great Britain and abroad. It is also interesting to trace the influences of early travel and observation combined with a long life of intelligent reading in the production of his last book, "The Passing of the Great Race." Some years ago I met an anthropologist, who, in conversation with Mr. Grant, was quite astonished that a New York lawyer should know so much about this subject—it was Professor Haddon of Cambridge University, and I explained that this had been one of Mr. Grant's avocations during many years of his life since he left college. The book has aroused much controversy and discussion. Men like myself and President Finley, tall, with blue eyes and light hair, agree as to which is the great race, and consider this a very important book. Men who do not happen to have such a tall stature and have dark hair are on the other side.

The moral of the book for our day and generation is one of great importance, because if there is one thing that is being constantly drummed into our American ears, from our school days up, it is that ancestry counts for little or nothing. This contempt of ancestry naturally is begotten of our contempt for the social position created by wealth or by law or by generations of nobility which we left when our ancestors came to this country. The book brings back to us the fact that there is a great deal more in ancestry than in mere social position. There are ancestral impulses, there are impulses to serve one's country, there are impulses to show one's patriotism, there are impulses of self-sacrifice, there are impulses for co-operation in government. In other words, every hereditary, every moral and every intellectual trait we possess is the result of some internal hereditary impulse.

For the reasons I have stated, Mr. Grant, I have helped to urge the award of this medal. We pay to you one of the highest compliments that can be paid to any man to-day, namely, we declare that you have proved yourself to be a true and patriotic American.

## MR. GRANT'S REPLY

I am glad to have this opportunity to thank the Institute for the medal and to say that I know of no greater honor that can come to a man than the appreciation expressed in such a manner by members of the community among whom it has been a privilege to live and in whose interests to work.

I feel that in comparison with the preceding speakers what little I have done has been far from deserving so great an honor, but I have always believed that the greatest cause that could interest an American was the preservation for future generations of some small part of that heritage of wild life, of forests, of clean rivers, of decent living and of pure blood that our fathers enjoyed and handed down to us, but which we shall not transmit to the next generation, unless a great deal more energy be expended in their preservation than has as yet been the case.

When one thinks of the forest that stretched unbroken from Hudson Bay to Florida and from the Atlantic to beyond the Mississippi, when one thinks of the innumerable herds of game that roved the plains, or of the fertility of the soil of the West, it is hard to realize that one short generation,—practically since the Civil War—those things have been swept away; that the sides of the mountains have been torn open; that the game animals have been butchered for their meat or their hides, or in the case of the elk, for their teeth; that trees which required a thousand years to reach their full growth have been cut down and sawn into shingles—excellent shingles I am told; a fish supply in great quantities at our very door has been deliberately destroyed. When we consider these facts, we can only wonder at the folly of this generation.

It is only a few years ago that we ate Delaware or Hudson shad and Kennebec or Pennobscot salmon; but nobody would eat them now, for it would poison them. All these things have been destroyed in this wild rush which we call development. When we destroyed the forest, in the days of our fathers, it was called a clearing, and regarded as an advance in civilization, but now we realize that the native American with his

rifle and his axe stands as the greatest human agent of destruction that the world has ever known, and he is still at work. It has been my privilege to play some small part in the movements that impose a check on this upward tendency of civilization and this development which is turning our land into a treeless, birdless, lifeless desert with denuded hillsides and muddy, sewer-clogged rivers.

THE MEDAL TO MISS DELANO  
PRESENTATION SPEECH BY DR. JOHN H. FINLEY

And now I have the pleasure of bestowing a medal upon Miss Jane Delano. I once saw in the Metropolitan Museum of Art a great painting showing a man riding at the head of a column of mounted soldiers advance down upon a line of negroes chained neck by neck across the path of the column, and bearing upon his shield a red cross upon a snow white field. That man was the hero of that age, but we have taken his flag, the red cross upon the snow white field, and we have wrapped it around the arms, put it upon the breast or upon the cap of those who give the highest ministry in our new Christian civilization; the nurse with the red cross is the incarnation of our madonna of the battlefield and of the tenelement and of the hospital.

To-day, in bestowing this medal upon one of the gentle servitors of the Red Cross, we are recognizing the merciful service of the Order. Miss Delano, who is the chief of the Red Cross Nursing Service, has given seven years of her life without compensation to this work. She has enrolled nearly eight thousand nurses for this work and has brought into association all the great nursing societies of the land, and under her direction thousands have given their service for those in need.

Last summer, I ordered a red cross flag for our chapter in Albany County, and there came by mistake, a very happy mistake, instead of the flag with the red cross upon the white field, the white cross upon the red field. That is to me a picture of the service of the nurse. When she is clad in her uniform and her arms are outstretched in service, it is the white cross upon the red field. I give you this medal, Miss Delano, which becomes consecrated by your service.

## MISS DELANO'S REPLY

I am very glad of an opportunity to explain briefly the forces and the influences which have made my work in the Red Cross possible. First of all, I would mention the work of Miss Boardman in bringing about the re-organization of the Red Cross, the placing of it definitely under central control, and the vision with which she saw from the very beginning the necessity for the development of a trained personnel. Then came the affiliation of the American Nurses' Association, which pledged themselves in 1909 to develop a Nursing Service for the Red Cross. My connection with the Red Cross has been as their representative, and whatever I have accomplished has been due entirely to their co-operation and loyal support. I take pleasure then in accepting this medal not for myself, but as a tribute to the nurses who have made the organization of the Red Cross Nursing Service possible.

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The Institute then went into executive session, and proceeded to the regular business. The Honorary Secretary read the minutes of the two meetings held in 1916.

In the absence of Henry P. Davison, Treasurer, the Honorary Secretary read the Treasurer's report, showing a balance of \$4,971.09 in the Treasury.

**REPORT**  
**OF THE**  
**ANNUAL DINNER**  
**AT**  
**THE HOTEL ASTOR**  
**NEW YORK CITY**  
**JANUARY 19TH, 1917**

**IRVING FISHER**

**PRESIDENT OF THE INSTITUTE, PRESIDING**

**SPEAKERS**

**HON. ARTHUR WOODS**

**MARSTON T. BOGERT, LL.D.**

**M. A. ROSANOFF, Sc.D.**

**MISS JULIA MARLOWE**

## OPENING REMARKS BY THE PRESIDENT

PROFESSOR IRVING FISHER

Before proceeding with the meeting this evening, there is some unfinished business from this afternoon, the presentation of a medal by the Vice-President, Dr. Finley.

THE MEDAL TO MR. SOTHERN

PRESENTATION SPEECH BY DR. JOHN H. FINLEY

MR. PRESIDENT, LADIES AND GENTLEMEN: As I said this afternoon, it is generally not considered much of an honor to be a vice-president, and still less of an honor to be one of fifty vice-presidents, but it is a real distinction to be selected from fifty such vice-presidents to perform this delightful office. So it has fallen to my lot to present this last of the medals. I think I know how General Joffre must feel at the end of a day, not of fighting but of decorating, for I have been conferring decorations most of the day, it seems to me, not of *croix de guerre*, however, but of *croix de paix*. One medal has been conferred upon the Mayor of the City, one upon a surgeon general, one upon a surgeon civil, one upon a physicist, one upon a faunal naturalist and one upon a Red Cross nurse.

Now we come to the last which has been saved for a representative of that art which was characterized this afternoon by Professor Phelps in that brilliant address, as more important than the episodes of the war, because, as he said, the war, no matter how long it lasts, will soon be over, whereas this art, this dramatic art, which was practiced in the days of Euripides and Aeschylus, will go on so long as there are two social beings on the face of the planet, a player and an audience of at least one.

And so without discrediting the other vocational practitioners, whose art seems at one time or another of greater consequence, we may say that we have saved for Mr. Sothern, a representative of this clerical art, that last precious bit of our year's treasure.

Mr. Phelps complimented me this afternoon by remembering something that I said at the ceremony of the laying of the cornerstone of the New Theatre. I had at that time a great struggle with my ancestors who objected to my going to the theatre, but I argued with them, and finally after a long time, I persuaded them to let me go. I told them how David danced before the Ark of the Lord, and I told them that I had heard Miss Marlowe pray more effectively in a playhouse than any minister that I had ever heard. I succeeded at last in persuading my ancestors to go with me, and I have had great difficulty since, because I haven't sufficient means or leisure to let them go now as often as they desire. Of course, it isn't quite as difficult now as it was in the past, since Mr. Sothern has left the stage.

I wish that I could appraise in detail the dramatic art of Mr. Sothern, but I dare not attempt this so closely upon the heels of that wonderful address this afternoon on "The Drama of To-day," and I cannot in any comprehensive way or in any adequate way, characterize the service of his art or the magic of his personality, for which I can find no suitable illustration except in the realm of chemistry, where there are substances that work miracles and yet are themselves undiminished. I can only say that if Mr. Sothern had a few generations ago been playing in Scotland and playing such delightful pieces as I have been seeing him play, my ancestors would not have stalked out of the theatre, they would have stayed to the end. In expressing my regret that he has quit the stage, I can only say that I regret that my posterity are not to have the pleasure and the profit of that of which my ancestors sought to deprive me.

I am speaking now for the Nation in thanking you, Mr. Sothern, for what you have done to make America a better, sweeter and more aspiring place in which to live and pursue happiness.

I heard a young man say the other day, lecturing at West Point, that when the Legion d'Honneur is conferred, the ceremony is not complete unless both cheeks of the recipient are touched by him who confers the honor. That does not appear to us a seemly ceremony, but I beg of you, sir, that

when you carry this home, she who helped you to earn this medal will touch both your cheeks and so complete the ceremony.

MR. SOTHERN'S REPLY

MR. PRESIDENT, DR. FINLEY, LADIES AND GENTLEMEN: When I was first informed that I was to receive a medal, I was very much concerned to discover for what purpose I was to receive it, and, after some reflection, I concluded it must have been for some excellence on the part of my wife. I am sure if it was not absolutely for that purpose, it was certainly given to me for some excellence which she had enabled me to achieve. I really feel that it is quite impossible for me to acknowledge that I have ever arrived at my destination sufficient to earn such a tribute, Mr. President, and I think that most people very seldom look forward to reward as their actual gratification; the mere pursuit and the excellent time and great happiness of their labors is, I am sure, sufficient reward. The last thing that I myself had ever expected to receive was such a tribute as you have offered me on this occasion. I beg to thank you, Mr. President and Dr. Finley and ladies and gentlemen for this very gratifying favor.

PROFESSOR FISHER'S INTRODUCTION OF  
COMMISSIONER WOODS

Before calling on the regular speakers and without making a speech myself, I want to thank the Institute for the honor that I myself have had in being elected your President.

I think that there will be at the close of this war a new opportunity for usefulness for this Association. This is a period of national self-examination, as some of the speeches that we are going to hear this evening will forcibly show. It is a time when we are beginning to appreciate the social viewpoint as distinguished from the private viewpoint. I was very much impressed by what Mayor Mitchel said this afternoon, when he said that it ought not to be a matter of special comment or call forth praise when a public official tries to protect the public interests as against special private interests. One

thing that we must learn to do is to apply science in the public interest. Private interests have made full use of science. Now we are beginning to understand, especially in view of what is happening across the water, how essential it is that the nation as a nation should make use of science. Every agency that will make for public scientific service should be called into play in the full at the close of this war, not only abroad but also at home. We must put a new and higher valuation on the public services of scientific men and reward them with the honor of the nation. I believe that this Institute, organized as it is essentially for this purpose, can itself perform an important public service.

We heard this afternoon from the Mayor of this city. The first speaker this evening will be one of his most able, courageous and efficient co-workers.

The last time I met Commissioner Woods was at a different kind of banquet, the banquet of the diet squad of the rookies! I do not know whether he is going to speak upon that subject or whether he is going to speak of the future policeman. I have great pleasure in introducing Commissioner Woods.

## THE POLICEMAN OF TO-DAY

BY ARTHUR WOODS

POLICE COMMISSIONER, CITY OF NEW YORK

I am a little embarrassed in speaking about the rookies' diet experiment, and I am afraid I can't speak quite as frankly and unreservedly as I otherwise should like to in the presence of the the caterer of the rookies. Professor Fisher comes from Yale to teach policemen how to eat. We have rather turned the tables, since we the first part of this week sent a policeman to Cambridge to give a course of lectures which should elevate Harvard.

This diet experiment—I don't mean the one at which we are, but the one at which I was at luncheon—is designed not to show people how to live on twenty-five cents a day. I don't think people would be particularly interested in that. It is designed to try to show people that in order to stock a person's frame for a day's work, at least as much care and thought should be given as stocking up an automobile for a day's work.

When you fill your motor car, you don't send a man out to buy any pleasant smelling liquid that he may come across to put into the tank! You instruct him specifically to buy that liquid which has been found most effective in making that engine do its day's work.

Far otherwise it is with our own human frames. We stock them up with whatever pleases the fancy, without any regard for that omnipotent creature who has been forced down my throat twice now, the all-powerful calory. He is the man that we must depend upon to stock up our frames for the day's work, and we are trying to show people how to pick out just the most potent calory.

That is rather a new job for policemen, to live for three weeks on that kind of food. We didn't dare to pick out the wise, old policemen of experience. We took the unsuspecting, unsophisticated rookie. It is rather a new form of work for a policeman, and it is rather a new conception of police

work that we have for the policeman in general. I think we are beginning to feel that the policeman of the future shall be quite a different person from the policeman of the past, the traditional policeman that you have had experience with, that you have seen as you have been walking up and down the streets, that you have seen pictures of in the comic papers. He has been a man highly developed in the forefront, not too active, rather complacent, at peace with the world, looking for doing no man a harm, a benignant, pleasant, peaceful, rather ponderous proposition.

The policeman of the future we develop far otherwise. We flatten his physique, and we try to broaden him on other than physical lines. We try to broaden his outlook on the world, on his job. We try to make him see that his job is a noble job, that unless he does his work well, the ordinary life of the community can hardly go on. Unless he maintains law and order, unless he preserves the peace, it is difficult for the life of the community to go on.

He labors under the peculiar disadvantage of having his work, when it is well done, passed practically unnoticed, but of having it flaunted in your face if he slips by any chance and makes a mis-step. The principal notice that you see in the newspapers about policemen is in connection with their bad work.

I rather welcome that situation, news being what it is, for a famous editor has said of news that it is the unexpected. If a dog bites a man, for instance, that is not news; but if a man bites a dog, that is news. If the unusual thing is what has news value, then I welcome the fact that it is the bad acts of policemen that are of news value.

We want the policeman in an unobstructive but effective way to become a sort of public agent for the general comfort, safety, happiness of the community. First of all, the policeman has to be able to maintain and enforce law and order. No one wants a kid-gloved, mushy, mollycoddle, if I may plagiarize, policeman. Your policeman must be an upstanding man who can take care of himself and the other fellow under all conditions. Besides teaching the rookie what to eat and not allowing him to eat what he wants, for three months, while we have him in our training school, we teach him how to fight, to make

him capable of taking care of whatever trouble may come to the city.

Having taught him that, having made sure that he is able to take care of trouble, then we try to broaden his sphere of activity. You have read of the Christmas trees which were given in station houses this year, where policemen picked out over forty thousand children who otherwise would have had no Christmas cheer in their lives, gathered them into the station houses, those dens of everything that shouldn't be, showed them a Christmas tree, had a little celebration, had the captain make a few remarks, and then sent the children away with armfuls of gifts.

Why did we do that? It was done not because we thought it was a good thing to have Christmas trees, but because we believed it was directly calculated to help the police perform their primary duty, keeping down crime. We believe that if the policeman could come into a real understanding with the people of the neighborhood, he understanding them and they understanding him, that the children of the neighborhood would tend to grow up law-abiding instead of law-defying, and, as one policeman said to me as I was leaving the Christmas tree of his station house, "The next time one of us 'cops' speaks to one of them kids and cautions it against trying to hook a ride on the back of a trolley-car, that kid will be apt to say to himself, 'Them's the words of a friend.'"

When you have seen in the newspapers or heard of the unworthy action of an individual policeman, and I am sorry that you have heard it altogether too often, you have been apt to jump to the conclusion that that man represents the force. That is a false conclusion. Your policeman to-day is a pretty good type of man. I think, as you see him walking up and down the streets, you will agree with me, judging from his appearance. He is as self-respecting, as honorable, as honest a man as you would expect in any large group—remember, you have about eleven thousand of them. He is trying to do his job, on the whole, about as well as he knows how. There are individual lapses,—yes, and they should be condemned, and severely condemned. I have no fear but that they will, but what I want, as your representative, for the morale of the force in order that the force may serve you as it should, is a spirit

on the part of the public not merely of condemning the force or of individual policemen when they deserve condemnation, but a willingness and a readiness to recognize good work by policemen when their work should be recognized. Nothing could be more important for the general spirit, for the general tone of any body of men, than the feeling that good things, high things, are expected of them and will be recognized when they are given. That has been lacking here in New York.

If you will demand the best kind of police work from your force and will recognize it when it is performed, I think that I, in behalf of the force, can assure you that its members will not merely keep the peace, that they will not merely lend themselves to such precarious experiments as seven-cent luncheons, but you will find them broadly developing in the future, until they become a force recognized as the friends of the law-abiding, the terror of the lawless, existing for the broad social purpose of trying to make the city safer, more comfortable and a happier place for us all to live in.

PROFESSOR FISHER'S INTRODUCTION OF  
PROFESSOR BOGERT

About a year ago the National Academy of Sciences suggested to the President of the United States the appointment of a national research council to organize and marshal, in the interests of national defense and preparedness, the research of this country. We shall hear in regard to this National Research Council from Professor Marston T. Bogert, Professor of Chemistry, Columbia University.

# THE NATIONAL RESEARCH COUNCIL AND THE MOBILIZATION OF OUR RESEARCH RESOURCES IN SCIENCE

BY MARSTON T. BOGERT, LL.D.  
PROFESSOR OF CHEMISTRY, COLUMBIA UNIVERSITY

Many of you recall that it was the custom of the late Mayor Gaynor on sundry public occasions to quote Epictetus, and, while I haven't his familiarity with the subject, I do recall that Epictetus wrote, "To make a good voyage, a pilot and wind are necessary; and for happiness, reason and art." We have our pilot here in the person of our presiding officer. The other speakers are ministering to your happiness by their reason and art. I take it that I am now called upon to provide some of the wind.

I would like to say to the Commissioner of Police and of calorics that one reason, I think, why the policeman has been somewhat misunderstood in New York City is on account of the dictionary, for, as every chemist knows, and as you will find in the dictionary, a "cop" is a wound-up bundle of yarns, wound up in a peculiar way and for a particular purpose, and in the mill as on our bill-of-fare is a part of the frame-up. The Commissioner has also referred to automobiles. That is a matter which concerns all scientists, and I would like to call to the attention of my colleague, Professor Rosanoff, inasmuch as he is to speak on scientific topics, that that is a subject which deserves some research; for I have read in the papers quite recently that those old Spanish hidalgos used to travel three or four thousand miles on a galleon, and the best I can get out of a gallon in my car is about ten miles. It seems to me that that is a subject which would interest Mr. Henry Ford, and he might like to establish a fund for the investigation of problems of this kind.

Permit me to express my very great pleasure in having an opportunity to explain before such a splendid gathering as this, something of the organization and plans of the National

Research Council. Through the co-operation of our great engineering and technical societies with their thirty thousand members, as you are, I think, all aware, an industrial census has recently been completed of the manufacturing resources of the country. An immense amount of information has been gathered, carefully classified, indexed and forwarded to the Federal Government for such purposes as it may see fit. That work has been well characterized, I think, as the first great movement in the direction of a real preparedness in this country.

The next step, and a necessary sequence to the foregoing, is the proper organization and census of our scientific research work, because it is evident that the industries can advance only as the sciences themselves advance upon which they are founded. As the Chairman has said, it was at the request of the President of the United States that the National Academy organized what is known as the National Research Council, "to bring into co-operation existing governmental, educational, industrial and other research organizations, with the object of encouraging the investigation of natural phenomena, the use of scientific investigation in our American industries, the employment of scientific methods in the national defense, and the application of science to such other purposes as will promote the national welfare." There is a very serious need in our country at the present time for something which will effect a better co-ordination and correlation of our scientific research work, something which, in the words of the chemist, we might call an accelerating catalyst to the growth and development of this work.

The various committees handling this task are doing it most effectively. Burdened, as we all are, with our own individual cares and responsibilities, our particular interests and pursuits, we have but little time to take note of what our colleagues are doing, except in those cases where their work runs closely parallel to or crosses our own, and even then, it is often not until publication that we are aware of the fact that other investigators have been busy in similar fields, perhaps in the same field as ourselves. That means a great deal of unfortunate duplication of effort and overlappings of all kinds; it means wasted time, wasted effort and wasted money. Sometimes, unfortunately, misunderstandings arise.

All, certainly much, of that could be obviated by the work of the committees of a research council in providing investigators with advance information as to what their colleagues were busy at, what they were contemplating undertaking, and in that way very frequently it would be possible to substitute for overlappings of this kind interested and inspiring collaboration and co-operation, and that we believe we can do, in conjunction with the various committees on research work which the National Research Council is organizing in our various institutions throughout the country. We believe that much can be done to bring about the better recognition of the importance of the work of the scientific investigator and the amelioration of his lot by securing for him more freedom and better equipment for research work, adequate assistance, and a living wage.

We feel that a careful, deliberate statement, prepared by an authoritative body like the National Research Council, based upon information which has been gathered by experts in various fields, and with the weight of the National Research Council of the National Academy and the Federal Government behind it, is not apt to be overlooked or to be ignored, and is quite likely to be productive of results.

I believe that it is the duty of the Council to call the attention of our educational institutions to the fact that there is at present a very serious shortage in the supply of men competent to undertake original scientific research. One reason for this is that so many of our bright young men, just as soon as they graduate, on account of the existing high wages in industry, are drafted into industry, before they have had any opportunity whatsoever to do any research work, although they may be admirably fitted for that kind of work. Our universities also are being robbed of many of their most inspiring teachers and investigators, and it seems to me that this is going to jeopardize the future of both the industries and the universities. If I had the time, I could call off for you at least a dozen men who have been heads of chemical departments in our great colleges and universities who, within the past twelve months, have left to go into industries of various kinds. This is a serious situation, and one which cannot be contemplated without some disquiet.

Then, too, there is very serious need of advanced textbooks and reference works in various branches of science in our own language. We have had to depend to a large extent in many branches of science upon books written in other languages. At the present time, of course, we are cut off largely from this supply, and our need is becoming more urgent every day.

Another need is that of great research institutions for science, like the Rockefeller Institute in New York, the Harriman Research Laboratory, the splendidly equipped Mellon Institute of which Dr. Rosanoff is such a distinguished representative, and also the great Kaiser Wilhelm Institute in Berlin. One of the most splendid monuments that any man could leave behind him, in my opinion, is a great research institution of that kind.

There is also a need for separate schools or colleges of highly specialized training in relatively narrow fields of pure or applied science. For example, such fields as dyeing and textile chemistry, the chemistry of glass, paper and pulp chemistry, tanning schools, etc. I might name any number of these special schools of which we have so few, and which are so very important for the development of the highest type of scientific work in this country.

I believe also that the Council should call the attention of the public at the present time to the very great desirability of sending competent American scientists to the warring countries of Europe, there to observe and take note upon the tremendous part that science is playing in modern warfare, the problems that have arisen as a result of those conditions and how they are being met, and to gather information of every kind which may be of use to this country. As we know, the medical men have already accomplished a great deal in this direction and are doing much, but in many other lines of science, because of lack of funds to carry on the work, practically nothing has yet been done. That is a work which must be done now or not at all, and it is of the utmost importance, for the safety and welfare of this country, that it should be done and be done thoroughly.

There are so many ways in which a Council of this kind could be of service that I can touch upon but very few in the

brief time allotted. I shall have to travel very rapidly, as I am trying to do at the present time, and hit a few high points, as it were, as we go along. One way, for example, in which a Council of this kind can aid is in bringing together the problem and the man competent to solve it. Anything that will do that is well worth while, and through the committees of the Council, we think that we can do much in that direction. So often our government and our great industries, when they have important scientific problems confronting them, are entirely at a loss to whom to turn. On the other hand, many of our most skillful investigators will be delighted to find that certain of these problems, of whose very existence they have remained in blissful ignorance, will fit in admirably with the kind of work they enjoy most, and the fact that the problem has direct practical bearing will give it added zest and charm. Then, there is the case of the research worker whose work would have been held up or abandoned altogether on account of lack of raw material or chemicals. I hope you will pardon me if I refer to my own profession. I shall have to draw my examples largely from that because that is the field with which I am most familiar. Convenient sources of raw material are often to be found in wastes and by-products, but many investigators are insufficiently posted concerning the nature and amount of the materials so going to waste—not only going to waste, but polluting our streams and tide waters and the very air we breathe.

Another case is that of the man whose investigation has come to a point where he needs a certain expensive piece of apparatus in making measurements or observations, whose own institution doesn't possess the apparatus and can't afford to buy it, and who has no means of knowing whether anything of the kind is available in this country or not. We may be in position to help that man. For example, I imagine that very few chemists, probably very few physicists, are aware of the fact that the Mellon Institute is at the present time building a great spectographic instrument which, when completed, will cost twenty thousand dollars. I know the same thing was true at Columbia University a number of years ago, when we bought a particularly fine photomicrographic apparatus, which was much the finest in the country

at the time. Hardly any one outside of our own circle knew that we had such a fine piece of apparatus.

There is the case of the young man who is carrying on some very interesting investigations, but who is wholly unaware that the results that he is securing are of tremendous interest and importance to what he believes is a purely unrelated and diverse field. That has happened in my own experience, in a group of compounds which I should like to explain to you, but the names of which are about as long as some of the German names in Mark Twain's "Tramp Abroad," where you see the letters extending uphill and downhill and disappearing in the distance.

The last case I will cite is that of a young man who goes out from his own institution to take charge of the chemical department in some smaller college or school, and who finds that he has some time for research, but who either is insufficiently posted concerning the really great problems of the day or doesn't quite see how he can contribute anything toward this work, and who therefore may turn to relatively unimportant investigations. One of our sub-committees may help to make that man's contribution to science of far higher value. Then, too, the realization that there is an organization of research men interested in him and his work brings with it much of encouragement and of inspiration, and the ever-brightening vision of how his work is advancing the science and is linking up with that of other investigators helps to lift that man out of the rut, gives him a wider outlook over his own chosen field of science and a much better appreciation of its possibilities.

What we hope to bring about in securing co-operation between pure and applied science may be likened to that which obtains in the great German chemical factories, for example. We want no better example than that of synthetic indigo. A single one of the German factories has expended over five million dollars simply in the development of the process of manufacturing synthetic indigo. The many brilliant investigations and the high engineering skill in their application which together have made possible the production of synthetic indigo of higher purity and of lower price than the natural article, I think, constitute one of the most brilliant

chapters in the entire volume of scientific achievement. I only wish I had time to turn over a few of those pages for you. They are as full of thrills and fascination and romance as the most wonderful story ever written. Many marvelous colors are derived from indigo. Tyrian purple, for instance, is only a derivative of indigo. Indigo is probably the oldest dye-stuff known to man, and it is still a prince among dye-stuffs. It may be too much to say that the Blue Room in Noah's Ark was decorated in indigo blue when the first peripatetic menagerie was successfully floated, but it is hardly to be doubted that Joseph's coat of many colors owed much of its splendor to that common article, because indigo has been found in the pyramids of Egypt, in the houses and shops of Pompeii, and in the ruined cities of Babylonia. It is a product of many plants which grow in temperate and tropical climates, and has been used by the savage and civilized alike for untold ages. It takes Nature many months to build up in these plants indigo, but the chemist has so thoroughly learned the nature of indigo that he can produce for you synthetic indigo, which is identical with the natural product, except that it is purer, in five seconds. That has been brought about by long and patient investigation on the part of a host of workers, practically all of whom have been actuated merely by the love of the work and by that divine, insatiable curiosity to know the why and the wherefore of things, and who hadn't the slightest idea when they reported their observations that they were ever going to be of any commercial or practical importance.

I think that Mr. Wilfred Thorley must have had these investigators in mind when he wrote:

The dead stars in the sky are still beheld,  
Though centuries gone their fires were quelled,  
From such unreckoned height doth fall their light.  
So thoughts, that barren seem, and without goal,  
May like these dead stars gleam in some one's soul  
When those that writ them sleep  
Unfathomably deep.

I meant exactly what I said in regard to indigo. I was not talking for effect when I said that it could be produced in five seconds, and I will prove it to you. What I have here are two colorless solutions. I am going to put those together and you will see indigo instantly formed before your eyes. One is simply a solution of caustic alkali, which can be prepared from ordinary table salt. The other is a solution of a substance which is known as ortho-nitrobenzaldehyde in acetone. We have here something which is made from common salt, wood and coal. (Mixing solutions.) There is synthetic indigo of higher purity than you get from the plant itself.

PROFESSOR FISHER'S INTRODUCTION OF DR. ROSANOFF

The remarkable relationship between pure and applied science being so forcibly brought to your attention reminds me that the chair that is occupied at the Mellon Institute by the next speaker is named after an old teacher of mine at Yale, J. Willard Gibbs, a worker in pure science, and that the holder of this chair is applying the spirit and method and results of this worker in pure science in a manner to be of great benefit to mankind.

It is a commentary on how little we in America have as yet recognized scientists that J. Willard Gibbs, who was the Isaac Newton of America, the greatest intellect, without any exception, with which I ever came in contact, and who, although I did not continue to work in the lines in which he taught me, I think inspired me with the meaning and spirit of science more than any other man, was so far from being recognized as a prophet in his own country that he was little known even in his own town. And yet, when I visited Germany, I found that my acquaintance with J. Willard Gibbs was an open sesame with any scientist there. There is a contrast for you between this country and Germany in the recognition of the meaning and importance of science! I have great pleasure in introducing the J. Willard Gibbs Professor of Research in Pure Chemistry, of the Mellon Institute, Pittsburgh, Professor Rosanoff.

## UNION OF SCIENCE AND INDUSTRY

BY M. A. ROSANOFF, SC.D.

PROFESSOR OF RESEARCH IN PURE CHEMISTRY,  
MELLON INSTITUTE, PITTSBURGH, PA.

Like Commissioner Wood, I, too, consulted a friend as to what I should say this evening, and Mrs. Woods, to whom I am referring, has kindly written out a program for me. Her program demands, in the first place, that I say something "witty and brilliant by way of an introduction." My mind began laboring along this difficult line; but as the foregoing speakers proceeded with their addresses, the program began changing against my will.

When Commissioner Woods appealed to our sense of fairness and charity as regards the New York police, I felt that I ought again to express some indignation over the trouble I got into when automobiling here in New York last summer, every time I broke the traffic regulations.

When, next, Professor Bogert told of the Spaniards who traveled several hundred miles on one galleon, whereas he can only travel ten miles, and suggested that we invite Henry Ford to establish an Automobile Fellowship in the Mellon Institute, I felt bound to state that such a Fellowship is already being founded at the Institute; and not a Ford Fellowship either, but a real Automobile Fellowship, seeing that only college professors, but no respectable people, travel in Fords nowadays. As our research progresses I hope to be able to tell my distinguished friend, Professor Bogert, how to travel a long way again on a single pint.

Lastly, when our President, Professor Fisher, referred to J. Willard Gibbs, all these things faded in my mind, and I felt forced to repeat here what I have often said when asked, "But who, pray, is Gibbs?" Whenever George Washington and Abraham Lincoln are referred to as the greatest Americans, the name of Gibbs should justly be added to this. I am sure Professor Fisher and Professor Bogert and men of sci-

ence throughout the world agree that the illustrious name of Josiah Willard Gibbs will not be as unknown in America five hundred years from now as it is at the present time.

To abandon then, with Mrs. Woods' permission, witty and appropriate introduction, I will come right down to the subject that I want to bring to your attention.

It is extremely interesting, it is an inspiration to me to rise to speak before this distinguished assembly. When I first received the honor of membership in the National Institute, I felt somewhat confused about the Institute's object. I had often admired, on the stage and elsewhere, its distinguished members, but I could not see how Julia Marlowe and Enrico Caruso and myself could be bunched together. But, as time has gone on, I have gradually come to believe that this Institute is destined to make a big contribution toward the preparedness and the future greatness of America. For it is in the united effort of those engaged in all the various social activities from creative work in the fine arts and enlightened philanthropic enterprise to research in the domain of pure and applied science, that the truest hope of our Republic lies.

I was asked to say a few words this evening on the subject of the union of science and industry. The Industrial Fellowship system of the Mellon Institute, of which I am going to speak, is an attempt to bring about this union. If you should undertake an imaginary trip through the industrial plants of this country, you would find, on the whole, a rather unsatisfactory state of affairs. Your preference for things that are "made in Germany" would, I fear, be intensified by the experience of such a trip. You would find a great many people there who think that Botticelli was a cheese, and Gruyère a Swiss painter. This you might forgive; but you would be shocked to find also professional scientific culture often equally crude and imperfect. If next you should visit the scientific laboratories in our universities, you would find theoretical learning and scientific competence; but, in most cases at least, a striking ignorance of the practical needs of the industries. Realizing this state of affairs, a man among us a few years ago, Professor Robert Kennedy Duncan, conceived the idea of directing the scientific light of the universities upon the practical problems of industry—surely for the

benefit of the industries, ultimately for the benefit of both. After a great many failures, which make another story, Duncan finally found a response at the University of Pittsburgh, the Mellon family of Pittsburgh being the first to appreciate the great possibilities of the Duncan idea in social science. The result was the establishment of the Mellon Institute, named after Judge Thomas Mellon. What was originally an experiment has now gone so far that the British Government and the British Association for the Advancement of Science have recently turned their eyes to the Mellon Institute idea as a guide in the future development of industry in England; the Canadian Government is at the present time establishing a similar institute in Ontario; and the Australian Government is also at the present time endowing a great institute of both pure and applied science, to be modeled after the Mellon Institute.

The plan of the Mellon Institute may be characterized as a very peculiar form of charity. While, namely, ordinary charity extends to the poor, or only to the "deserving poor," the Mellon Institute worries about and tries to help the rich. The Institute, which is an endowed institution, offers to the active manufacturer to try and solve any of his problems that are beyond the powers and facilities of a routine testing laboratory such as is usually maintained in connection with an industrial plant. The Institute is ready to pay the overhead expenses of the research, and the manufacturer is asked to contribute nothing but the salary of the trained investigator who is to devote himself to the research of the laboratories of the Mellon Institute, which, as Professor Bogert has justly remarked, have an unparalleled material equipment for industrial scientific research—an equipment far beyond the means of the average manufacturing establishment.

The results of this system of giving something for nothing to the rich manufacturer will best be illustrated by an example. Let me tell you briefly about the Mellon Institute work on bread. The bakers had been having trouble in making what is known as salt-raising bread. Many of you know that in the South and certain parts of the West salt-raising bread has long been a favorite article of diet. Since no yeast was used in making this peculiar bread, it was vaguely be-

lieved that it was raised by the common salt contained in the dough, and hence the name. Housewives seldom had success in making this bread, and bakers could not undertake to make it at all, the manufacture being attended with too much uncertainty. It is related that Governor Stubbs of Kansas, a salt-raising bread enthusiast, offered his daughter fifty dollars for a single loaf of good salt-raising bread.

You know that Louis Pasteur is the discoverer of ordinary yeast, and that by this discovery Pasteur placed the manufacture of bread on the firm foundation on which it rests to-day. Well, the cause of the rising of "salt-raising" bread was similarly investigated, under the Industrial Fellowship system by Dr. Henry Kohman, and with a similar result. Dr. Kohman discovered that salt-raising bread was produced neither by salt, nor by yeast, but by an entirely different micro-organism, a spore-bearing bacillus! The United States Patent Office cruelly permitted Dr. Kohman to become sole owner of the entire race of these unfortunate little individuals for a period of years; but in due time everybody will be at liberty to employ them for the excellent work which they alone can do.

So bakers began making salt-raising bread as easily and surely as ordinary bread. I hope you will not suspect me of being an advance agent for the bread bakers if I tell you that salt-raising bread is *real* good. It even has important advantages over ordinary bread: for instance, it is more digestible than ordinary white bread, while being perfectly wholesome and nutritious, and it is a very economical kind of bread. Let me mention right now that in baking ordinary bread there is involved a big loss of between 4 and 5 per cent in weight. That amount goes off in the form of alcohol and carbon dioxide, both of which are produced in the process of fermentation by yeast. In making salt-raising bread the loss is negligible.

Success in the salt-raising bread research encouraged further investigation. The Ward Company had had the surprising experience of sending to its bakeries in different cities one and the same flour with uniform instructions as to the making of bread from it, and then finding that in some cities their bakers were successful and in others they were not; the self-

same directions carefully followed by competent bakers seemed to work in some places and give out in others! The trouble was turned over to the Mellon Institute, and Dr. Kohman and his associates again went to work. They discovered that the trouble was due to differences in the water of different cities, and next they discovered that it was certain salts contained in the water that had this effect. So the question arose as to whether such salts might not be of real advantage in bread making if properly employed? Investigation led to the discovery that homœopathic quantities of salts of ammonia and of lime, and still more minute quantities of potassium bromate, went surprisingly far toward feeding the yeast and keeping it working vigorously; so that, by the use of these nutriments and yeast tonics, it was possible to reduce the amount of yeast employed altogether to about one-third that ordinarily used, and the bread losses from about 5 per cent to about 2 per cent—a double economy that is already worth a great deal and will in time save millions of dollars annually to the bread industry of the world.

If you should visit the Mellon Institute, as I hope many of you will, you would find a suite of rooms devoted to the study of bread. You would learn that the most recent achievement by Dr. Kohman and his co-workers is the discovery that a certain series of fats possess twenty-two times more shortening power than the fats commonly used and yield bread of a particularly fine quality—a new economy, and again an improvement of the quality of the product. And our ingenious bread investigators are not through yet. Before this very year is out, they will perhaps have taken a new step forward in the ancient industry, into which have at last been introduced the rational methods of science.

It was my intention to tell you also of the best dental cement in the world invented by Dr. Vogt at the Mellon Institute, and of a string of other artistic performances. But the sight of the toastmaster's gavel has deprived me of all remaining courage, and I stop, with apologies to Mrs. Woods for having neglected the difficult program which she had mapped out for me.

## PROFESSOR FISHER'S INTRODUCTION OF MRS. SOTHERN

I never tried to play the policeman before, and I never knew that I could be so terrifying. We have heard very interestingly from the last speaker of the relations between science and the industrial arts. Even he seemed mystified as to how science and the fine arts, such as the art of playing on the stage, are related.

I will not try to explain that mystery. It is one of the sacred mysteries of this Institute, but all science really begins and ends in art, as our program has this evening. It began with Mr. Sothern, and we are going to end with Mrs. Sothern.

Mrs. Sothern then read "An Elegy Written in a Country Churchyard," by Thomas Gray, and a sonnet by Shakespeare.

## **PAPERS BY MEMBERS**



## SOME PROBLEMS IN PRISON REFORM

BY WILLIAM J. HOMER

AGENT AND WARDEN, GREAT MEADOW PRISON

A prominent speaker addressing the meeting of the American Prison Association held in Buffalo in October, 1916, touched on a point in the problem of prison administration that has never, to my knowledge, been given proper emphasis. Yet an appreciation of the fact in question is absolutely essential to even a superficial understanding of the task confronting the administrator, and while it is not here intended to more than briefly mention it, my hope is that in judging our work the public, before passing final opinion, will take this matter into consideration.

The point is this: The men and women who make up the population of the various penal institutions are society's failures. In the courts many of those who give promise of betterment, if allowed another opportunity, are released through probation and suspension of sentence. The others are sent to prison. Having done this, society looks to the institution administration to so care for and train these wastrels that when the time arrives for their release they may come back to it made over again and ready to take their places as worthy integers of the social system.

Admittedly, the task is a difficult one and full of danger. It is dangerous for society to turn loose, at the expiration of the sentence, an inmate who has not been taught during the period of incarceration the folly, the utter wrongfulness, of criminal living; it is dangerous also to the individual who, if failure is the result of methods used during segregation, cannot protect himself from himself. And this danger seems to me greater than the other, for society can protect itself from the depredations of the habitual criminal; while the victim of unrestrained passion and divers kinds of lust which characterize recidivism, is helpless in their grasp, his only hope of salvation lying in forcible restraint.

Dangerous and difficult as the task may be, yet it is not a hopeless one. The work of Great Meadow Prison has conclusively proven that fact, and it is, on the contrary, one full of hope for the prisoner himself and society at large. The system in vogue here is an evolution rather than the working out of a set plan. When my administration began, somewhat over five years ago, I had absolutely no knowledge of prison work; my training had been altogether along business lines in connection with which had been, at times, the supervision of men in considerable numbers. I had no preconceived notions of what a prison should be like or how it should be run. Here was a new institution and a unique problem to be worked out; the understanding given me by the department head was that he wanted me to tackle it because I could do so without prejudice.

The various steps that have led to the establishment on solid foundation of the Honor System, which, though really a general term, is pretty clearly identified with Great Meadow, are interesting but not necessary of repetition. What the public wants to-day are results; the means by which they are attained are of secondary moment. I find, however, that the public has no clear idea of what the Honor System is and perhaps it were as well here to briefly outline it.

Great Meadow is not a prison of original commitment. All the inmates are received by draft from the state's three receiving prisons, being selected by the institutional authorities and the lists thus compiled endorsed by the Superintendent of Prisons who orders the transfer. On the morning after the arrival of a draft the members are congregated and addressed by the warden or principal keeper who briefly defines for them the plan of work, their privileges and restrictions. Labor assignments are then made, the bulk of the draft being placed in one gang in charge of an officer who is experienced in handling this raw material. In this gang are a number of inmates who have been here sufficient length of time to become imbued with the spirit of Great Meadow, who will work as a leavening influence on the new men and help them to an understanding of the new conditions and requirements. We realize that this can best be done by inmates who will talk

freely among themselves, and these few older men have been retained in that gang for just the purpose they fulfill.

At the close of this initiative period, varying from two to four weeks, the new men have become acclimated and work in with the scheme. From time to time, as needed for other forms of labor, or because of some fitness they show, they are drawn from the gang to which originally assigned and spread to other parts of the institution. Every man is watched closely and there is no time when the officials have not a very fair idea of his qualifications and amenability to our form of discipline. Those who, as time goes on, demonstrate conclusively that they do not fit into the plan, are sent to another institution. Our action in this regard has been adversely criticised, but is justified on the ground that we must protect the majority of our men from the evil influences and example of a small minority.

The law of the state permits the employment of one guard for each fourteen inmates in its prisons. At no time since my incumbency have we had the full quota. I have believed that it makes for better discipline, and certainly it is a wise economic measure to keep the number of guards at a minimum. The guards in charge of companies act as foremen and are encouraged to work with the inmates as well as to direct the work which the latter perform. Some of the guards are employed as pickets and placed on points of vantage near the larger groups of men, and two mounted guards are stationed, one at the south and the other at the north end of the property, who would, in case of trouble, act as messengers to convey the information to the administrative officials. *None of these guards carry gun, rifle or club.* A few carry a pistol, but even this practice is discouraged by the officials.

Let it be fully understood, however, that Great Meadow has no patented process for making men into angels. We have here the good and the bad, like every other penal institution in the land. My belief is, though, that if a man is treated as a man he will respond in a manly way; if he is treated as a brute he will prove himself to be a brute. We have had ingrates in Great Meadow; we will have more as the years roll along. When these men show themselves unworthy of the confidence reposed in them they are removed. The

interest of the few must always be subordinated to the good of the many—that is law, and a prison is one place above all others where the law ought to be kept.

We have been harshly criticised because we keep, and use as occasion demands, a pair of bloodhounds for the purpose of trailing men who escape. As Governor Charles S. Whitman emphasized in his speech before the American Prison Association at Buffalo: "The solid rock of any sound system of prison reform is iron discipline. The majority of those who compose our prison population have had no discipline in their lives, and the first task is to teach them respect for law, obedience of established authority, habits of order and industry." *At any cost these lessons must be taught.* The prison administrator who does not teach them is recreant in his duty and should be removed from office. It is for this reason we keep these man-trailing dogs; the men of Great Meadow must learn obedience, form habits of order and industry, and respect the law. If they do not; if they leave the precincts of the institution without having learned these lessons, then Great Meadow is a failure and the Honor System a farce.

And I now desire to speak briefly of what we are doing to teach men to work. Every student of criminology knows that the lack of work—lack of ability, desire or opportunity to work—is the chief source of crime. In prison the inmate must be taught to work if he does not know how, inspired with a desire to work if he has lacked this quality, and given the opportunity to apply the lessons learned. Until less than a year ago this was the problem that came nearer to filling the heart of the administrator with despair than any other connected with the work. Everyone admitted that the solution of it would be largely found when some method of paying the prisoner for his labor should be discovered. But to pay the five thousand or so prisoners of New York State anything more than a nominal sum was manifestly out of the question—the amount would be so large that no legislature would pass a law appropriating the money.

A financial return to the inmate for his labor being impossible, the idea of reimbursing him with time for faithful performance of the duties assigned was evolved. Colorado

was doing this for a small number of its prisoners who were employed in honor camps on road work, and one or two other states had similar laws. But why not apply the practice to the entire population providing their work deserved it? Reasons against it were sought diligently, but the more thought was given the matter the greater was the wonder that it had so long lain dormant.

The idea finally crystalized in a bill, approved by the administrators of the state government and sponsored by most of the officials of the prison department. In order to incorporate it into the Prison Law every section of the statutes relating to commutation, compensation and parole of prisoners had to be rewritten—a considerable task in itself. But when it was completed and the legislature had passed it without a dissenting vote, it took its place as the most comprehensive piece of prison legislation that has ever been passed in the history of this or any other state. From first to last Governor Whitman knew of the progress of the bill and it received his final endorsement and signature on the first day of May, 1916, when the measure became operative.

This law provides that each inmate of a state prison or penitentiary within the state may receive for each thirty days of willing and efficient performance of the duties assigned a reward of ten days, which time is deducted from the minimum term as imposed by the court in the case of first offenders sentenced indeterminate, or from the definite term of the prisoner so sentenced. It is not a coercive law in any sense of the word. The earning of the maximum possible allowance is squarely up to the inmate himself. A system of marking, based on the daily reports of each officer in charge of prisoners, determines the monthly allowance. Time forfeited cannot be regained, but at Great Meadow every inmate adversely reported by his officer has an opportunity to be heard in his own defence before allowance is made.

Here, the law has made marked changes in the attitude of the inmates toward their work. While in a general way they had always done fairly well, they had failed to perform their best. But under the new incentive they have done more and better work, and in consequence are going out into the world better equipped physically and mentally, and better able

to perform the tasks the world has for them than they have been in the past.

Summing up, I would say that the reclaiming of social waste and failure, which is the admitted work of the prisons of our land, is succeeding at Great Meadow. We do not claim to perform the impossible and return to the world, character made over and without crack or flaw, every case that is brought to us, whatever its condition. We do aver, however, that we hold before our inmates an ideal that is possible of attainment, at the same time helping them to reach it, and that we shall continue in this endeavor whatever discouragements and obstacles may be met or placed in our way.

## THE WINIFRED MASTERSON BURKE RELIEF FOUNDATION

BY F. K. STURGIS

The Winifred Masterson Burke Relief Foundation was founded and endowed by the late John Masterson Burke as a tribute to the memory of his mother. Terms of acceptance and the founder's purpose were briefly stated in the trust deed as follows:

"The founder desires in his lifetime to dedicate a substantial part of his estate to the relief of worthy men and women, who, notwithstanding their willingness to support themselves, have become wholly or partly unable to do so by reason of sickness or misfortune, or have been discharged from hospitals before they have regained sufficient strength to resume their employments."

It is planned not only to restore to health and occupation those recovering from surgical operation or illness, but to prevent sickness and invalidism by providing a short period of rest, appropriate food and freedom from worry and care in pleasant and healthful surroundings.

It is very greatly to be regretted that we are in possession of so little information regarding the parentage, childhood and youth of this remarkable man, whose generosity, wise judgment and far-seeing beneficence have combined to provide for the convalescent sufferers of New York, the institution known as the Winifred Masterson Burke Relief Foundation, nobly constructed and liberally endowed.

According to our best knowledge, Mr. Burke was born at No. 1 William Street, in the City of New York, on the second day of July, 1812.

His parents were born in Ireland, and there is some reason to believe that his father had seen military service in some capacity before coming to America.

At sixteen years of age we find him in the employ of James P. Alair, whose business was the conducting of a foundry for

iron and steel construction, and somewhat later in his life, at the invitation of Messrs. Buchto and Thebaud, he went to Balladina, in the Province of Yucatan, Mexico, to assume charge of a cotton factory.

His position at Yucatan broadened his business experience and added materially to his general knowledge, bringing him in contact with merchants of other nations and providing him with a familiarity with shipping and mercantile interests of many kinds. Here he also acquired an accurate knowledge of the Spanish language, which he spoke fluently. Many of his close ties and valued friendships were among merchants, sea captains and others of Spanish birth or parentage, and he saw much of life on the Mexican coast at Vera Cruz and elsewhere, as well as during a still later period in Cuba.

Retiring from mercantile business in the early Seventies, Mr. Burke turned his attention to railroad construction and flotation.

In middle life he purchased the modest brownstone house, twenty feet in width, at No. 18 West 47th Street. At that time this location might be regarded among the most northerly of the residential districts, being just south of the holdings of Columbia University.

It may be said of his fortune, that while it was the result of his earnest, intelligent and honorable efforts and his self-denying life, it also owed its chief accumulation to the extraordinary length of that life. Few mortals attain an age in excess of ninety-seven years, and we may note that during the last fifteen years of Mr. Burke's life, his fortune, owing to the high rate of interest earned by many of his investments, was augmented in a most satisfactory manner.

The advantage thus gained was a great gratification to the owner, who saw the results of his life's work ever increasing for the good he planned.

In the present township of Bronxville, upon the White Plains Turnpike, Mr. Burke became possessed of a tract of some sixty acres, having thereon a roomy country house with extensive stables, cow barns, orchards and pastures. He was fond of animals, and enjoyed breeding horses and raising cattle for his own uses.

The house and grounds are at present devoted to the purposes of the Foundation. After moderate alteration and renovation they were occupied as a convalescent home by boys from ten to sixteen years of age, too young to be admitted to residence in the main buildings at White Plains.

Mr. Burke was never married, but for many years a widowed sister, to whom he was tenderly devoted, shared his home and was the object of his constant care until her death, which preceded his own by many years.

His life was singularly free from any form of ostentation, and he never sought to broaden in any degree what may be termed his social ties. He had a few friends, persons of high character and position, and for him their companionship was sufficient.

For a number of years prior to his death, Mr. Burke had cherished the wish to do some useful and important work for the benefit of his fellow-citizens, through the medium of the funds which he realized were so rapidly becoming a fortune.

He consulted but few people, yet made earnest inquiry and most careful investigation into the nature of existing charities and benefactions.

Finally, when approaching his ninetieth year, his attention was drawn to the great charity created many years ago by Captain Randall, by which was founded and endowed a home at Snug Harbor Landing, on the north shore of Staten Island, for sailors and mariners who, having formerly sailed out of the Port of New York, were by illness, or old age, unable longer to pursue their accustomed following.

Deeply impressed by this great work, and perhaps influenced also by his former close relations with seafaring men and others who formed the laboring classes, the choice of Mr. Burke for his own work was finally determined, and arrangements were promptly commenced for creating and endowing a Free Convalescent Home for the people of New York.

Such Home to be a tribute to and to bear the name of his mother, but to be for the temporary use of those who were sick and feeble and who, while willing to work for their own support, were disqualified by their condition from doing

so, and who would benefit by the comforts and the privileges of a free period of enlightened convalescent treatment.

Conscious, however, of his advanced age and naturally failing powers, the donor of this proposed organization declined to assume the labors connected with construction, development and organization. He preferred to pursue the course of placing the greater portion of his property, as a trust, in the hands of a few friends, accompanied by a suitable deed of gift, accurately stating his wishes and fully outlining the proposed procedure; the actual work, however, to be postponed until the decease of the donor.

The friends he selected were the Honorable Abram R. Hewitt, Edward M. Shepard, William R. White and Frank K. Sturgis, all citizens of New York.

Mr. Shepard proceeded to draw the deed of gift and prepared an able, clear and comprehensive document. Wishing to be protected in every respect, the Legislature was requested to pass an act of incorporation, giving powers of an ample nature. This was done, and the funds designated were given to the trustees, and the Winifred Masterson Burke Relief Foundation came into being.

The few men who met with the aged philanthropist, and with him affixed their signatures to the papers prepared and assumed the necessary responsibility, realized that a great deed had been done and that a great boon had been conferred upon mankind. They realized further that a long-felt want was now to be soon supplied, and that generations to come would be inestimably benefited by the action thus taken.

By his will the residue of his property was bequeathed also to the Foundation. Ultimately this will was, on different occasions, attacked, but the decisions of the courts and the rulings of the Surrogate were favorable, and the property passed, as the testator wished and intended, augmenting the great fund already given by the deed to the trustees.

Years came and went, and the life of Mr. Burke was prolonged beyond the most sanguine expectations of friends and physicians.

Mr. Hewitt died, and then Mr. Shepard's life of great usefulness closed. Other able and wise and unselfish men joined the two original trustees and thus enlarged the board.

The litigation alluded to as following Mr. Burke's death terminated, and during its progress for three years the fund augmented, the interest thereof being carefully reinvested or safeguarded in the custody of the Trust Company.

In the autumn of 1911, and in order to carry out the wishes of Mr. Burke, a site was secured at White Plains for the Foundation, by the purchase of some sixty acres of ground from the Society of the New York Hospital. Messrs. McKim, Mead & White were engaged as architects, and their plans were carefully studied, amended and, as finally prepared, were duly approved and adopted by the Board of Trustees.

The deed of gift called for the erection of brick buildings, and it was specified that they must be plain and of substantial construction. Work in conformity therewith was commenced in July, 1912.

The labor of construction and arrangement was carefully pushed forward, a proposed system of administration planned and details adjusted.

An Admitting Department was provided for in New York City by the purchase of a suitable brick residence at No. 325 East 57th Street, and some necessary alterations were made therein.

Sitting or waiting rooms were thus provided for the patients, likewise a suitable examining room, while four bedrooms were arranged for the use of patients who might be here detained before proceeding to White Plains, or upon their return.

A motor car omnibus was especially designed, of unusual width, and fitted with dual pneumatic tires and all arrangements for comfort, carrying sixteen or more adults. The seats are so ample that ill persons may recline in case of need. By this means the transportation of patients from 57th Street to White Plains is rendered easy.

The great work of construction with all its ramifications, the buildings and equipment, the roads, water supply and sewers, as well as the employment of needful competent nurses and assistants, were so far completed that on the 7th of April, 1915, without formality, the doors of the Burke Foundation were opened for patients. The capacity has since been in-

creased, and now with its branch institutions numbers nearly three hundred beds, giving accommodation to about six thousand patients during the year.

The convalescent field, to which the Foundation has been consecrated, has as yet no clearly defined outlines. The Foundation to a great extent is pioneering in the convalescence of the following classes: men in large grouping, boys from twelve to sixteen years of age, colored people, cardiacs, severe surgical dressing cases, lung abscesses, drug addictions, certain forms of tuberculosis, rheumatism, and in the experimental and limited reception of needy persons in various border-line nervous, mental and other conditions that have been considered generally inadmissible to such institutions.

Yet it is within this convalescent field, and despite constant outside influences toward deviation into other lines of relief, that the Foundation desires to continue its efforts, finding in it broad possibilities, with many urgent and unappreciated needs and problems.

Our aim is to increase the proportion of formative, constructive and preventive convalescence. These terms, while not very definite, apply valuably in practice. A few weeks of pleasant residence given to a woman having fair connections and support and no planned productivity may be thought of as passive convalescence. Contrast with this the restoration and replacing in work of the family wage-earner, or the depleted mother nearing permanent breakdown. Cardiacs having records of months of each year in hospitals, and who, by directed rest, plus occupation-therapy, are upbuilt to enjoy long periods of reasonable productiveness, furnish, on the other hand, good examples of the more difficult but worthy forms of this preventive and constructive work.

The selection of these patients is made at the receiving house, No. 325 East 57th Street, by a nurse supervisor of broad social service experience, with the attending physician's advice, preference being given to what may be called "acute" or "early" or "urgent" or "sick" convalescence. "Branch hospital" work is thus, in considerable measure, being entered upon for two hundred or more co-operating organizations and institutions sending us patients.

Surgical dressing cases are freely taken. Wounds heal more rapidly in the convalescent home for various reasons. Sun treatment may be given; most of the irrigations and applications done; physical-therapy instituted and continued; the surgeon's co-operation held by phone, letter or visit; exercises and occupations started which toughen and train and cheer the patient for sooner and surer re-entrance on productive life. Motor transportation is successful in many classes of fairly recent operation. One thousand surgical dressings per month are being done; and we care for nephrectomy, empyema, mastoid, many recent fractures, wounds with drains, etc.

Scant provision for institutional care had ever been made in New York for boys and girls from ten to sixteen years of age, but the Foundation, by taking over the women convalescents from Campbell Cottages (New York Hospital Branch) helped to make possible the establishment there of a pavilion for adolescent girl convalescents.

Grouped boys of this age-period present inherently trying problems, but a place for them was provided at Sunny Brae, the old country home of Mr. Burke, at Mt. Vernon, N. Y., with its spacious rooms, rambling outbuildings, orchards, streams, woods and a seventy-acre farm. Upwards of seven hundred boys have been received there since its opening. The capacity is thirty-five beds.

From the outset it was planned to attempt here the difficult phases of boy convalescence, represented by heart disease, chorea, pleurisy, empyema and the severe surgical dressings, tuberculous lesions other than active pulmonary, depleted typhoids, pronounced malnutritions, anemias, etc., and to avoid the making of a mere vacation place for those only moderately in need of a country recuperation, and to aim less for weight increase than gains in blood-enrichment, bone, muscle and posture, manners, courage, and standards, and in nerve reserve.

From the first the Foundation recognized the need of providing for the country convalescence of the colored people of New York, a population of one hundred and fifteen thousand, for whom practically no convalescent beds have been available. A house in White Plains accommodating fourteen women, and a cottage for men has therefore been provided.

In convalescent work, as may readily be seen, the importance of securing the co-operation of hospitals can hardly be overestimated as an aid in determining acceptance of sicker and more doubtful applicants. Happily, the New York hospitals have always stood ready to take from us patients needing hospital care, incident to unfortunate relapse or intercurrent of disease. Those needing the hospital are usually taken in our motor ambulance back to the sending institutions.

As part of our curative process we have organized a play-therapy. It does not suffice merely to provide the apparatus; steady direction is needed, and we often note the good effect of one new outdoor game added to a narrow life. Its psychology is interesting. Playing a little baseball, for instance, even of a staggy and dyspnoeic kind, seems to signify recurring manhood to an American. Nearly all of the games and recreations are represented, especially out-of-doors.

We have also organized an occupation-therapy, in which occupation is considered not chiefly diversional, but remedial, reconstructive, curative, convalescent-normalizing. It is not a side issue; it costs; it is our best medicine. It is prescribed, in writing, for more than one-fourth of the patients—cardiacs, hyperthyroids, choreics, all the border mental and nerve folks, the inherently restless, all long stayers, the temperamentally difficult, the quitters, the pampered, the disheartened.

Various cement workings, basketry, sewing and fancy work, artificial flower making, looms, carpentry and repairs, cobbling, painting, tailoring, grounds-care, farming and gardening (especially at the Boys' Branch), assistance in our offices and library, entertainment and policing—these are the main lines. About one-fourth of the patients are in prescribed occupation at all times; and these are, with rare exceptions, heartily desirous of continuing it. Much of the work is carried on in the patients' rooms and cottages and out-of-doors. The hours are carefully graduated and limited.

Results of the work-cure, plus mental-therapy, in selected cases are not so vague and unmeasurable as thought. They are in most instances definite and remarkably good. We have records of these people moulded back into normal living. We are knowing that they were usually not lazy—only misled, mismanaged, misenviored.

Among the greatest and most baffling problems recognized by the Foundation was that of cardiac convalescence and rehabilitation, and it therefore lent its aid in the inauguration of the Trade School for Cardiac Convalescents. The convalescing and trade teaching branch of this organization was removed from Sharon, Conn., to a cottage in the White Plains Institution soon after the opening.

An Association for the Prevention and Relief of Heart Disease has since been established in New York, to serve as a centralizing bureau of information, study and occupational aid in this now most difficult and pressing of health-economic problems.

Regular convalescence of cardiacs meanwhile goes on increasingly in the Foundation. Over seven hundred have been cared for. Selections are carefully made, mainly by the cardiac classes connected with the larger hospitals; many are of necessity refused admission. Failures occur; methods and results are partially undetermined. Highly specialized selection, graduated occupation-therapy, fairly long stay, with a close linking of home "follow" to appropriate occupation—this cycle, with occasional rests, indicates one succeeding line of progress at present.

But youth is undoubtedly the main field of opportunity in heart disease. One hundred and thirty cardiacs between ten and sixteen years of age have given most uniformly good results in our Boys' Branch, with an average stay of seven to eight weeks, in gradually increased outdoor occupation and the general recreational activity leading up, almost automatically, to perhaps two-thirds normal participation in baseball and the varied boy-sports, a record considered as a notable contribution to cardiac-therapy.

Persons with definitely chronic conditions are usually considered ineligible to convalescent homes. But the border-lines are ever vague, and many chronics find proper place in our temporary care. Those who can be returned to even short periods of a fairly productive life seem to deserve the opportunity. This consideration has become the governing one in deciding admissions in this broad class (which includes most of the cardiacs, for example), and the work "chronic" is well-

nigh set aside. Keeping subnormal people at reasonable, though limited, production seems a most worthy function.

Our experience has shown us that nothing else known to medicine equals the effects of a fitting vacation. Weight and strength gains, blood enrichment, and the storage of nerve and other reserves would be thought miraculous if brought about by less homely and natural means. Though a majority probably of American vacations are partial failures or worse, here remains a great medical fact—and quite underappreciated. Medical teaching essentially ignores it. Vacationing will yet be given more scientific direction. On this solid foundation of truth the convalescent institution basically rests.

Taking, then, the most effective restorative agency known, the Foundation adapts it to the half-sick, the handicapped and subnormal, the failing, the depressed. The patient goes under the expert in vacationing—*conditioning for daily life*. Sleep, exercise, rest, feeding, amusements, diversional and hardening occupations, companionships, care of minor ills, dentistry, mental and moral slants, home betterments at the same time, and future employment are all studied and adjusted to the individual (placed free from money worry), and the results are inevitably and inspiringly good. A successful convalescence sends the person away with the glowing eye of the ten-year-old, “the Burke Foundation eye,” the social workers have come to call ours; or the “Burke Foundation face”—smoothed, smiling, courageous.

What precisely, then, is the product of these institutions and of this rather large expenditure per person? First in numbers, of course, the speedier and complete recuperations of those who have been acutely ill. (And it should be here said that the lasting qualities of this standard convalescence are well known to those in the work—and form important justification). Then comes the newer long-term and more testing phases, giving (ever with a small percentage of failures) end-results, which may be indicated as follows: cardiacs who have been much in hospitals and dependence strengthened to maintain fairly steady occupation (cardiac youth especially successful and economically important); early nervous and mental border-liners of many kinds turned back, by occupational and mental-therapy principally, to fair livability and content;

drug addicts, after the special treatment, likewise built up to a point of hopeful retrial; rheumatics in limited selection given long terms, particularly for their heart's sake, and at last sufficiently toughened for competition by graduated play and work; choreics, especially if young and in first attacks, discharged cured in six to ten weeks, and recurrences diminished; various subnormal youths sent forward with weight, blood, nerve, posture, and character and educational additions that are mainly permanent; protracted surgical dressing cases in large numbers carried to earlier and more solid healing plus hardening for work; operation avoided in some selected acute inflammations; hyperthyroidism afforded long rest plus nerve and heart training with notably worthy results; non-pulmonary tuberculosis, quiescent pulmonary and the pre-tuberculous periodically reinforced for their hard and continued battle; pleurisies given special long upbuilding; and finally, a steadily increasing output of those purely preventive and holding recuperations—those are some of the better and more difficult things now being done in convalescent institutions; and many extensions are in prospect.

Much of the medical portion of this article is taken from the Annual Report of the Foundation, 1916.

## MEETING THE MENTALLY SICK HALF WAY

BY GEORGE A. HASTINGS

EXECUTIVE SECRETARY OF THE COMMITTEE ON MENTAL HYGIENE  
NEW YORK STATE CHARITIES AID ASSOCIATION

The most vital activity of the State Charities Aid Association during the past year, according to Mr. Homer Folks, its secretary, has been the work of the Association's Mental Hygiene Committee in furthering the establishment of free mental dispensaries in connection with the State hospitals for mental diseases.

The State had already, at a recent date, made possible the voluntary admission of mentally sick people (formerly called the "insane") to the State hospitals. This replaces in many instances the old legal procedure of commitment with its red tape and often humiliating publicity. Within the past year the State has taken another forward step by establishing in connection with the State hospitals, free dispensaries to provide early diagnosis and prompt treatment for the mentally sick, especially those in the early stages.

The State of New York, since the establishment, some twenty-five years ago, of a system of State care of its mentally sick, has developed a system of institutions remarkable for their efficiency, and high standards of treatment. During the process of development, however, the State authorities having to do with provision for the mentally ill, became convinced that their full duty could never be accomplished merely by the indefinite construction of new institutions to house patients already desperately ill. They began asking themselves: "Are we meeting the mentally sick half way? Or are we waiting until they come into the hospitals after a delay that has made the prospect of cure more remote and the process long and expensive?"

As a result of this honest questioning and the information which from time to time was brought to their attention, the authorities came to the conclusion that there was a real need of prevention—of organized, State-wide, persistent effort to

find persons, when they were beginning to get sick mentally, and to see that something was done for them, and done in time.

Of course, during the past fifty years the ideal of treating the insane had been coming closer to that of caring for the physically sick in the general hospitals; almshouse and jail care had been giving way to hospital treatment; for the idleness, degradation, neglect and physical restraint of the penal and pauper institutions were being substituted a high grade medical care and nursing, hydro-therapy, recreations, occupations, and comfortable and humane housing.

But another important step had to be taken. The outpatient department, which had contributed so much to the efficiency of the general hospital, had to be made as inherently a part of the State hospital as of the general hospital, before the State institution could measure up to its full opportunity in caring for the mentally sick and preventing mental disease developing into serious or hopeless stages. The very change of name from asylum to hospital made during recent years implied that the insane hospitals should have a department for out-patients.

Not every person physically sick needs to go into a hospital, and there are certain classes of people with mild forms of mental trouble, or in the early stages of forms which may become serious, who do not need actual hospital residence, but who do need expert advice and treatment. It is for such cases that the State hospitals of New York are now providing dispensaries with social workers attached, and are making an earnest effort to meet the mentally sick half way. The hospitals, in other words, are pushing out into the communities, assuming a considerable degree of responsibility for the mental health of people in their districts, and are becoming centers of health, as well as places for high-class care and treatment. The hospital and the patient are meeting at a half-way house—the mental dispensary or clinic.

This system of out-patient clinics came about substantially as follows:

For more than forty years the State Charities Aid Association has been working for the welfare of the insane in New York. In 1906, co-operating with the Manhattan State

Hospital, it instituted after-care of paroled and convalescing patients. As an outgrowth of that after-care work there was organized in 1910 a Mental Hygiene Committee of the Association to carry on a State-wide campaign for the prevention of insanity, and for securing earlier diagnosis and treatment of mental disease, under State auspices, if possible.

Soon after the campaign of prevention started, efforts were made to induce the State of New York to establish out-patient clinics for free diagnosis, advice and treatment in cases of early mental disorder. Such attempts were not immediately successful. Public ignorance, official apathy, and lack of funds all stood in the way.

While working hard to overcome these obstacles, the committee also decided to approach the task from a different angle, and to demonstrate to the State what could actually be done in the kind of a clinic or dispensary which it was asking the State to establish. Accordingly, with the aid of physicians from two of the State hospitals, they opened a clinic on the Lower East Side in New York City. The need of such an institution was almost immediately shown by the use made of its facilities. Trained social workers co-operated with the clinic physicians. The existence and purposes of the clinic were made known to the general public, social agencies, probation officers, clergymen, physicians and others throughout the city. Growth was rapid. In a short time the clinic was moved to Cornell University Medical College and incorporated into the Department of Psychopathology. To-day the clinic has a record of having assisted more than 1,900 persons to medical treatment or social readjustment.

This demonstration and the educational campaign which was being carried on by the Committee in the meantime were arousing interest in State effort along this line. In 1913 the New York Legislature at the suggestion of the Committee, passed a law authorizing each of the State hospitals to establish an out-patient department, assign a physician to it and employ a social worker or field agent. This law has been referred to by Dr. Salmon as the most important law in behalf of the insane passed in a generation.

For several reasons, particularly lack of funds, the State hospitals were slow in taking advantage of the new law.

Until very recently only three of the thirteen institutions had a paid social worker, and only eight free dispensaries had been established where patients could be seen on stated days and at stated hours.

The number is now growing. A total of fourteen additional clinics located sometimes at State hospitals, sometimes in general hospitals or other suitable places in nearby communities, have now been put in operation under a regular schedule, making a total of twenty-two. They are located in New York City, Ogdensburgh, Malone, Watertown, Rochester, Yonkers, Poughkeepsie, Peekskill, Buffalo, Binghamton, Jamestown, Salamanca, Dunkirk, Brooklyn, Olean, Middletown, Kingston and Mt. Vernon.

Governor Charles S. Whitman, of New York, has been deeply interested in the early discovery and treatment of mental diseases, and it was largely through his active interest and support, in co-operation with the State Hospital Commission, that the system of out-patient departments of the New York State hospitals has been extended and made efficient. Governor Whitman lent his influence to furthering the establishment of dispensaries in connection with all the hospitals, enlarging the activities of those already started, and employing a field worker in connection with each of the hospitals. At a conference between the Governor, members of the State Hospital Commission and members of the staff of the Mental Hygiene Committee it was decided to proceed along the lines and to the extent contemplated in the new clinic law of 1913, the Governor asked the help of the Mental Hygiene Committee in establishing and supervising the dispensaries.

The work of establishing such dispensaries had, however, only begun. People generally did not understand what the new scheme was all about; what it was intended to accomplish, or how it was proposed to go about it. The Committee prepared a statement about the project, worded plainly and without technical terms so that the man in the street could read and understand. This was shown to the Governor, his approval and indorsement secured, and it was sent to every newspaper in the State of New York. This marked the beginning of the educational campaign regarding clinics.

Patients did not come immediately. It was necessary to explain to the public that a mental dispensary was a regularly appointed place where anybody might come on a specified day and hour for free consultation, advice and treatment by a mental specialist from a State hospital; that the specialist would examine all who came, and advise with them and their relatives and often with the family physician.

When the first new dispensary was established last winter in the general hospital in the little village of Malone, Franklin County, an assistant physician from St. Lawrence State Hospital was in attendance. On the appointed morning the specialist appeared at the clinic—and he was the only person who did appear! There was not a patient. It was evident that greater newspaper publicity was needed to acquaint the public with the existence of such a clinic. To advertise the Watertown Dispensary, opened a little later, seven hundred circular letters were therefore sent to physicians, clergymen, social workers and prominent residents throughout the county. Two articles fully explaining the project were supplied to all the newspapers in the county. In this publicity the purposes of the clinic were fully explained, and information as to the hours, place, name of the physician, etc., was given. In addition, a public meeting and exhibit on mental hygiene was held in the local Y. M. C. A. the night before the clinic. Popular addresses were given by the clinic physician and by the writer. The local newspapers gave extensive reports of the meeting, copies of both addresses having been furnished them in advance. The following day a clinic session was held in the City Hospital and eleven patients attended. The next day the clinic was in the Sisters' Hospital, and the attendance was thirty-one. There were more patients than the doctor could examine in the scheduled hours, and he devoted all the afternoon and part of the evening to examinations.

When a new clinic was established in the Williamsburgh General Hospital in Brooklyn, thirty-four hundred circular letters were sent to clergymen, physicians, and social agencies in Brooklyn, and articles were furnished to seventy newspapers in four counties. The result of the publicity was the remarkable attendance of eighty persons at the opening session of the clinic, only one of whom proved committable. The subsequent attendance has averaged between twenty and twenty-five.

And so it has gone in connection with other clinics established one after another throughout the State. Generous publicity has been necessary to interpret the aims and methods of the clinics and to make them effective. In the newspaper articles and the circular letters an invitation to attend the clinic is extended to all persons who feel depressed, nervous or worried or who have lost some of their interest and zest in life and its daily duties. Individuals who feel that life is becoming too hard for them; who find themselves without the normal desire to associate with other people; who think they are misunderstood, slighted or shunned by their friends—these and many others are told that they will find help in a frank talk with a mental specialist. Persons who think that the world is against them, who sleep poorly and have numerous nervous symptoms undoubtedly benefit by seeing a specialist who understands the mental factors of their case.

It is further explained that persons suffering from mental disease in its early forms are often misjudged by members of their family and friends because the real nature and source of their trouble is not recognized. Without treatment their condition becomes worse, and many are in State hospitals to-day who might have avoided such confinement by early attention to their difficulties. The dispensary provides means to detect the early symptoms, understand the causes and see that medical and social steps are taken to remedy the conditions.

To these dispensaries come such people as the abnormally irritable individual, the excessive worrier, the boy or girl who is developing peculiarities of behavior, the hysterical case or the victim of some other neurosis, the hard drinker, and other types who exist in every community.

A child will be brought by the mother whose intuition has told her that he is "different" from the others. A man will come who has found his customary work grown difficult, and who is conscious of a loss of memory; also a youth who fears that he is hopelessly entangled in some sexual difficulty, but thinks there is a possibility that some good "mind doctor" might help him find a way out. An anxious wife will come to inquire about a man who "has always been a good husband, although he drinks a bit," but lately has become irri-

table and suspicious, and has lost four jobs because "people are against him." The brother of a patient in a State hospital will come to inquire if it is certain he will become insane because his brother did. A patient on parole from the hospital will benefit by a visit to the clinic and will give the physician an opportunity to see how he is getting along and to make suggestions to prevent recurrence of his trouble.

It is encouraging to see people coming for consultation and treatment for mental disorders nearly as frankly and naturally as they would in case of physical illness. It indicates that the public attitude toward insanity and the institutions for its treatment is slowly but surely changing for the better. It is no longer looked upon as a curse and a crime, but as a disease—and a disease for which to seek treatment as would be done in any physical illness. In many instances the breakdown can be prevented or deferred, and if the disorder is of such a nature that it inevitably will be necessary to take the patient into a State hospital, this can be learned in time and the step taken before the occurrence of tragedies such as startle communities from time to time.

It is inspiring to see the New York State hospitals, which have a total population of more than thirty-three thousand patients and constitute the greatest curative undertaking in the world, pushing out into the communities in their important preventive work. The hospitals are now seeking out the persons who are suffering from milder forms of mental disorder and can be effectively treated in their homes or dispensaries; paroling convalescing patients to be looked after by their social workers, and, in general, extending into the various communities the skilled care, diagnosis and treatment heretofore possible only inside the hospitals. All this is lifting the State hospitals out of their isolation, connecting them up with everyday life and making them more useful to the community.

The attendance at the various clinics has been most encouraging. The St. Lawrence State Hospital had an attendance of one hundred and sixty-four patients at five clinics in Malone and Watertown. In six months the three clinics in Brooklyn had a total of four hundred and eighty-eight patients.

A most important phase of the out-patient department work is the part played by the social worker or field agent.

Such a worker is indispensable as an assistant to the physician in receiving the patients, keeping records and visiting the homes to see that the doctor's orders and recommendations are carried out, and also in seeing that the family are made to understand the nature of the patient's illness and are induced to co-operate. In cases of paroled or discharged patients they visit the homes to see that conditions are satisfactory for the patient's return and are made such as to prevent a recurrence of the trouble.

The field agent's work with paroled and discharged patients is very important. In New York State a patient on parole saves the State about \$210 a year for maintenance, in addition to making room for another patient in the already over-crowded hospitals. Last year \$530,000 in maintenance charges and cost of new construction was saved through extension of the parole system. With more social workers to keep closer track of patients outside of the hospitals, more of them can be safely paroled and complete the period of convalescence in their own homes. The short-sightedness of discharging patients from the hospitals without oversight over their subsequent mode of life is obvious. It is encouraging to note that convalescing patients are coming more and more to get the helping hand instead of the cold shoulder when they return to their homes from the sheltering institution and seek to re-establish themselves in the surroundings and employment of everyday life in the outside world.

"The State Hospital," as Dr. Chapman says, "is taking care—and good care—of a large number of wrecked lives. We are rebuilding some of them very successfully. But I think we will reach our greatest value when we have gained the confidence and understanding of the district the hospital serves to such an extent that the intelligent lawyer or clergyman or farmer or carpenter or laborer will come to us and tell us of certain new and annoying or disconcerting traits, habits or symptoms or lines of thought, or what not, developing in himself or in members of his family and ask our advice regarding them. It is in this direction, I believe, we are tending, and it is there, in the early recognition and treatment of mental troubles, that the hospital is going to find its greatest sphere of usefulness."

## THE BIG BROTHERS

BY ERNEST K. COULTER

FOUNDER OF THE BIG BROTHER MOVEMENT, AND AUTHOR  
OF "THE CHILDREN IN THE SHADOW"

The Big Brother Movement is based on the simplest and most fundamental principle of human brotherhood—that the best way to help the neighbor is to help him to help himself. It is not a charity in the common acceptation of that term. For, unfortunately, in so many of our latter day so-called philanthropies the handing out of a hod of coal, a basket of groceries or a five-dollar note is called charity. At best, these things are but puny palliatives, and do not go to the root of the trouble, no matter how worthy the intentions of the giver. It is often doubtful whether they work for the upbuilding of self-respect and character in the so-called beneficiary.

The Big Brother Movement is the giving of heart, head and a practical kind of help that enables the little brother to shake off the shackles of a wretched environment; aids him to get on his feet; to make a way for himself; to repay by his conduct and service such financial or material aid as he may have received. There is thus developed in him that most important element in character building—self-respect. A remarkable feature about the Big Brother and Big Sister work—for there are Big Sisters who are doing just as effective work for their less fortunate little neighbors—is that it makes the man or the woman who engages in it a bigger, broader, better citizen. There is not a man or woman who is really doing his share in this work to-day who does not say that he has profited more by it than the child who has been helped.

It is difficult to say whether the Big Brother idea, which has been taken up in ninety-six cities in this country, came as the result of long and earnest thought given to the problem of how best to help children who were the victims of bad environment, or whether the idea had in it something of an inspiration. During the autumn of 1904 the writer was asked

to address the men's club of the Central Presbyterian Church of New York, and tell them something of the conditions which brought children into conflict with the law. At that time the writer was the Clerk of the Children's Court. Each year he saw pass before that tribunal a great pathetic procession of ten thousand children, charged with all sorts of offenses. The value of the *individual* interest and touch had time and time again been demonstrated to him when he asked some of his friends to take that individual interest in boys brought into court chiefly as a result of bad surroundings. The lesson, that life is correspondence with environment, was impressed on him early in his court experience. In other words, he soon came to see that almost any man or woman who had been forced to live in the same conditions from which these children came would have been overwhelmed. He saw, too, that no one deserved any special credit for being what he was, unless he had overcome tremendous obstacles in the way of bad environment. Most of us are creatures of environment. He told the men in the club that night these things, he gave them that definition of a friend which, perhaps, best sums it up: "A friend is a feller what knows all about yer an' likes yer jest the same." He spoke of the thousands of boys each of whom needed a friend, and who could be saved to useful citizenship by being made to feel that there was someone who really cared whether he got on or not, and who was willing to give him friendly help and advice. This was not to be in the way of platitude but rather by suggestion. No one judge, nor hundred probation officers, had there been any such number, could indefinitely follow up all the cases that came before the court. If one man of good will, however, would take a friendly interest in one boy it would mean, in the vast majority of cases, that the boy would become a helper instead of a parasite in the community.

It happened that this particular club had been organized "to *study* civic betterment." The writer suggested that if the club could not do more, it would at least be *doing* something for civic betterment if it helped one boy in the way he had suggested.

They were splendid, red-blooded men, who wanted to do and were only waiting for someone to point out the way. The

idea appealed to them. Soon forty men were calling on and were showing a friendly interest in forty boys who had never had any of the things that God intended for every child's heritage. Their visits took them into cellars and into tenements. They had read about poverty, but they had never seen it face to face. It was a revelation to these men, most of whom had luxurious homes. It gave them a sense of responsibility to the less fortunate neighbor which they had never had before. It was good for the boys, of course, but even better for the men. Some of them, perhaps, made mistakes at first, but not many, for they soon learned to combine heart and head in their work.

It was the writer's privilege recently to address the congregation in the Middle West of the man who had been the Assistant Pastor of the Central Presbyterian Church in New York twelve years ago, and who, perhaps, was the first Big Brother to go into one of those homes. The man was the Rev. Dr. Joseph T. Britan. He told his people that the biggest act of his ministry was done on the day when he went down the rickety steps into the Hell's Kitchen tenement to visit the boy, Emil. That boy had started to run away when he saw the minister's legs coming down the steps, thinking it was the "hookey cop," but he had returned to the mother he thought was dying and whom he had been nursing. The boy had been a truant from school. As a result of that visit the entire family was saved. This was one of the beginning incidents in a work that has spread not only all over the country but into foreign lands.

There are now eleven Big Brother and Big Sister organizations in Greater New York alone. Mrs. William K. Vanderbilt started the Big Sister work in 1911. With her broad vision and great heart Mrs. Vanderbilt saw that, if the right person took hold, just as much could be done for a girl who had come into conflict with the law as for the boy. There had been a reluctance, perhaps, upon the part of some women before that to take up the cases of girls who came into court under most distressing circumstances. That attitude, it is good to record, is rapidly changing. The Big Sisters of all religions have been able to be of tremendous help in the cases

of the other smaller children in the homes as well as in those of the older girls.

It is not to be understood from this that the Big Brother and Big Sister work is by any means confined to cases that come into the Children's Courts, or that the activities there encroach in any way on the splendid work being done by the probation officers. The Big Brothers and Big Sisters co-operate with the probation officers, often taking up cases which they can no longer handle, and again, many cases that could not properly come under their jurisdiction. More and more cases are coming from sources outside of the courts. In other words, the preventive side of the work is rapidly growing. More emphasis is constantly being placed on this. There is no reason why the work should be confined to the courts.

There are thousands of boys and girls who have never been arraigned who need this sort of attention just as much or more than those who have come into court. The names of children who would profit by friendly individual interest of Big Brothers and Big Sisters come from many sources: from individuals, from the boys and girls themselves, from the Department of Education, the churches, societies for the prevention of cruelty to children and various organizations. It is interesting to note that the Benevolent and Protective Order of Elks have taken up the Big Brother plan in their own way and are aiding poor boys all over the country. There are thousands of men and women in the country to-day who are doing Big Brother and Big Sister work. Some of the boys who were among the original little brothers have now taken a place in the community where they are now Big Brothering youngsters who need it. It may be of interest to note that of all the men who have active cases in the original Big Brother Movement only  $2\frac{1}{2}$  per cent, according to the report of Mr. R. C. Sheldon, General Secretary, failed in the past month to report in detail regarding their boys.

The Big Brother is chosen according to personal characteristics, religious faith and geographical proximity to his little brother. The man and boy are brought together and introduced either at the Big Brothers' office at No. 200 Fifth Avenue or the boy's home. The new-found friend is then in a position to visit the boy's home, make the acquaintance of

the parents, and plan the work to be done. In the meantime, the Big Brother has received from the office of the secretary a transcript of the data regarding the boy and a number of helpful suggestions. The first report from the Big Brother is due in two weeks after assignment, and bears especially on the boy's physical and mental equipment and environment. The Big Brother is urged to study the boy's characteristics and to direct him along the lines of mental development and the vocation that would seem to have the best future for him.

There are many splendid young men that the writer meets in the streets to-day who, ten years ago, were children in the shadow, and so handicapped that there would have been nothing ahead for them but a life of criminality or pauperism had not some man with the right vision and head taken hold. It is found that usually the busiest and most successful man is the best Big Brother. George Gordon Battle, one of the greatest lawyers in this country to-day, told the writer only recently that he had never experienced the same keen joy in any legal victory as that which he had gained by his triumph in saving some of his little brothers to useful citizenship.

There are no limits to the possibilities in this work. To-day it is being carried into industrial lines, into banks, into colleges; into practically every field where men and women of good will take any thought for their less fortunate neighbors and co-workers.

The profits of such a work run big to the little brothers and the little sisters, yes, but they run bigger to the men and women themselves in the dividends of happiness which they get from the consciousness of service, and they run biggest of all to the State.

## A MUSEUM FOR CHILDREN

BY ANNA BILLINGS GALLUP

CURATOR OF THE CHILDREN'S MUSEUM, BROOKLYN INSTITUTE  
OF ARTS AND SCIENCES

Before the museums for grown people had removed their forbidding signs, "Children under twelve years of age not admitted unless accompanied by an adult," the first museum to be maintained expressly for children was opened in Brooklyn, New York.

Professor William H. Goodyear, Curator of the Department of Fine Arts in the Museum of the Brooklyn Institute of Arts and Sciences, originated the idea of a Children's Museum, an idea that became effective in December, 1899 when the trustees of the Institute established this unique institution as a branch museum.

The home of the Children's Museum is a fine mansion which, having become city property together with its beautiful grounds now known as Bedford Park, was leased to the trustees for a term of years at a nominal rental.

Although managed and controlled by the trustees of the Institute, the Museum is supported in part by optional annual grants from the city and in part by gifts from private sources.

Its aim is to give children an active interest in and love for Nature, and to offer encouragement and practical assistance to young people engaged in Nature study pursuits.

To this end it exhibits a great variety of carefully selected and prepared specimens and models illustrative of the various departments of science; operates a wireless telegraph station; maintains a Nature reference library of about 7,500 volumes; conducts free courses of illustrated lectures; lends natural history specimens to schools; offers the continuous services of a docent, and encourages the activities of children's Nature clubs and societies.

Taken as a whole, each collection in this "wonder house for children" emphasizes an important fundamental idea,

while the separate objects composing it present a great many phases of Nature.

Zoology alone is represented by five different collections; the type series that begins with the lowest forms of animal life and follows the ascending scale to man; the insect collection that comprehends every form of insect life found in Brooklyn and vicinity besides a large number of showy, tropical species; the collection of local birds arranged in calendar form to show what birds can be seen in Brooklyn at any month of the year; and the collection of animal homes in which the male and female of each species are displayed with the nest and young.

The botany collection really begins in the Park, outside the Museum, where every tree is labeled and more than forty species are represented. Within the Museum are large colored dissectible models of plants, and a flower table which is always laden with cut flowers, either wild or cultivated.

The mineral collection arrests the attention of younger children with its models of the largest nugget of gold and the famous historical diamonds; it holds the interest of beginners with a display of ornamental stones and gems, and it opens up the subject of mineralogy in its broader aspects by means of its systematic series.

Geography and United States history figure prominently in the collections of the Children's Museum, but not as dry subjects belonging solely to maps, pictures, charts, musty documents and relics. Special features of the historical room are the miniature model groups depicting scenes in colonial life, and illustrating important political, military and naval events in the history of our country.

In the geography room primitive races from the different zone belts of the world are also portrayed in miniature among their natural surroundings and engaged in their customary occupations. Artificial lighting gives to each scene a natural appearance that causes the child visitor to feel more like a traveler than a museum guest. Within the space of an hour he can make a world tour, beginning with a hunting scene in a Brazilian jungle, continuing with surf riding in the South Sea Islands or a pause among the Bedouin Arabs in an oasis of the Sahara Desert, and ending with a walrus hunt among

the Smith Sound Eskimos on the coast of Greenland by the light of the Aurora Borealis.

An active corner in the Museum is the "busy bee" room where the children study natural history material which they have collected, making use of magnifying glasses and microscopes for the purpose; analyse, press, and label plants for their herbariums; identify and label minerals, and mount insects. In this room are balanced aquaria and a hive of living bees.

About two hundred thousand visitors use the Museum annually. Nearly thirty thousand of these voluntarily attend the Museum lectures despite the fact that the lecture room seats only one hundred people. About fifty thousand visitors habitually read in the library, and over eight thousand children are members of Museum clubs.

Young men and women who have grown up in close association with the Museum, and who are now following professions determined by their early experiences while under its influence constitute the strongest evidence in favor of a wider application of the Children's Museum idea.

Although the Brooklyn institution is the first one of its kind in the world, children's museums are now flourishing in Boston, Mass., and Cleveland, Ohio.

Educators from all parts of the United States and from eighteen foreign countries have studied the Brooklyn Children's Museum; six foreign languages have told the story of its work, and letters of inquiry about it received by the writer from places as far away as New Zealand inspire the hope that the children of the future will have increasing numbers of their own museums.

## VOCATIONAL GUIDANCE

BY LILLIAN D. WALD  
AUTHOR OF "THE HOUSE ON HENRY STREET"

It does not really matter whether it be an accidental or logical sequence of arguments that opens the windows of the mind to the social significance of an inadequately protected childhood. The majority of people of our generation, whether they use technical social-economic phrases or those of compassion, realize that the conservation and protection of the child is of paramount importance to the nation. The age-long appeal of the child has been its dependence and its beauty. The more modern understanding is that what we do for the child to whom we give protection and education we do for his future as an individual unit in society and for our future as a State.

My own enthusiasm for providing adequate care for the sick child happened to be the window that opened up a vision of his other relationship to the world. It is years since we first discussed future "jobs" with little boys and girls, and watched them,—all unprepared and unknowing—venture out into the world, the more imaginative of the children picturing it as a world of opportunity, of independence, of speedy rewards, of gracious smiles of approval from hitherto sceptical millionaire bosses. Sometimes, it was marriage with a son or daughter—always beautiful—that peeped out from the corner of the canvas. Many of the juvenile impromptu plays took the form of very plucky, very youthful, office boys showing great sagacity and bringing down a grateful "You shall henceforth be my partner," and so forth. Strange as fiction, and as true, have been the careers of some of our young friends, but the mass is governed by the inevitable laws of consequence and of economic necessity.

I should therefore like to use the space allotted to me to describe even though briefly a plan that has grown out of our multiple experiences with the boys and girls at the House on Henry Street.

## THE SCHOLARSHIP PLAN

Through publicity, propaganda and legislative enactment, the public of New York State acknowledges the obligation of keeping the children in school and forbidding their employment under the age of fourteen years. But even the children of the poor at fourteen years of age are very young, and in many ways less trained, less competent to meet people, to understand orders and to comprehend vocabularies, than are the children of the well-to-do whose home training is of definite value. Travel, correspondence, regularity of school and home routine, and the innumerable educational opportunities that unconsciously train and develop, together with adequate food, and proper hours of sleep, all have an important bearing upon the preparation of the child, physically and mentally, for his life work.

The children who go to work at fourteen years of age are likely to enter what are known as the "blind alley occupations" which are of very little value to themselves in experience, and of almost equally little value to the trades they enter. Those readers who are interested in the subject can be furnished with overwhelming evidence of these facts. The exceptional child, like the exceptional adult, is not affected by ordinary conditions; he may master his circumstances; but the great numbers of children sent out of public and parochial schools are ordinary children and the fact remains that the work obtained by the untrained boy or girl rarely leads to promotion. At sixteen, with the child's mind more matured, things improve. At the Settlement we attempt to meet the situation by giving to the children between the ages of fourteen and sixteen, definite training in occupations that will enable them to enter with some skill into the trades or occupations for which they have shown aptitude.

In 1908, the Henry Street Settlement established a definite system of "scholarships" for children from fourteen to sixteen, to give training during what have been termed the "two wasted years" to as many as its funds permitted. A committee of administration receives the applications which come from all parts of the Boroughs of Manhattan and the Bronx, and preference is given to those children of widows or disabled

fathers whose need seems greatest. Careful inquiry is made by the capable secretary to discover natural inclinations or aptitudes, and these are used as guides in determining the character of the instruction to be given. Three dollars a week—somewhat less than the sum the children might have been earning—is given weekly for two years, during which time they are under continual supervision at home, at school, and through regular visits to the Settlement. They are looked after physically, provided with occasional recreation, and, in the summer time, whenever possible, a vacation in the country. The Committee keeps in close touch with the educational agencies throughout the city, gathers knowledge of the trades that give opportunity for advancement and, to aid teachers, Settlement workers, parents, and children, publishes from time to time a directory of vocational resources in the city.

Approval of this endowment for future efficiency comes from many sources, but no encouragement has been greater than the fact that, while the plan was still in its experimental stage, my own first boys' club, the members of which had grown to manhood, celebrated their fifteenth anniversary by contributing three scholarships (\$450. a year); and that the Women's Club of the Settlement, whose members feel most painfully the disadvantage of the small wage of the unskilled, have given from their club treasury or by voluntary assessment for this help to the boys and girls.

The children who show talent and those whose immaturity or poverty of intellect makes their early venture into the world more pitiful, have equal claim upon these scholarships. The investment in the children has brought extraordinary results. Comparative charts hang on the walls of the Settlement, showing the value to the children themselves. And while this value is not surprising to those who know how easily a child may be influenced at that impressionable age, it is surprising that the influence and the timely help should be so obviously translated into economic and social values for the child. A steady situation and better pay at the week's end dignifies the worker, whether young or old. Dignity and self-respect bring higher standards of conduct and intelligence. One might write a chapter upon the psychological effects on

the boy or girl who starts out with some knowledge or training and some assurance of his or her value in the world of industry.

Last year the children who obtained scholarships numbered one hundred and fifty, ninety-three for girls and fifty-seven for boys. They have taken courses in printing, electricity, carpentry, designing, draughting, machine shop work, commercial courses, dressmaking, millinery, machine operating, embroidery, sample mounting, glove operating, novelty work, and other occupations.

There are many, many little boys and girls of fourteen who should get this intensive vocational education and close guidance for the two precious years. There is no limit to the enthusiasm and industry of the members of the committee. Thus far the limitation has been only that of money.

I select one of many illustrations of what those two guided years did for a child; the oldest of eight children. Her father, who has since died, was ill with diabetes. Esther, herself, according to her teachers, was hopelessly dull at school. The Secretary of the Committee discovered in talking with her and her teachers and club leader that she liked to do things with her hands and showed some ability. She was granted a scholarship and sent to a trade school where, because she was not capable of taking up a more skilled trade like dressmaking or millinery, she was placed in the novelty department. Here, she steadily advanced and a year and a half ago completed the course and obtained her first situation. Now seventeen years old, she is making fifteen dollars a week. Another sister whom she had put through a trade school has just finished her course and is also ready to embark on the industrial sea. Thus the scholarship granted to one child often is an expenditure that saves not one only, but another brother or sister in the same family.

Through the efforts of the Committee, an important experiment in vocational guidance is being made at Public School No. 147, but "that," as Kipling says, "is another story."

## THE BOY WHO WORKS

BY WILLIAM McCORMICK  
EDITOR OF "THE READING HERALD"

There has been a shifting of the spot light of late. It has been beaming effulgently this long while on the Boy, who we are quite ready to believe is not only the father of the man, but day after to-morrow going to be the man himself. But of late the spot light has concentrated its rays. It is now beaming with a peculiar force upon the working boy.

For the son of the household of wealth much is being done; prep schools, summer camps, private tutors, great athletic fields, high-priced coaches and all the rest. For the high school boy in the mass there is nearly as much. But for the hundreds of thousands of working boys—those who leave school in their very early teens to toil away in mine or factory or mill or foundry—there is almost naught. From him we exact much of skill and strength and speed and zest. To him we pay a moderate wage. Thereto we add nothing of stimulus, of opportunity, of enlightenment, of counsel.

To our dismay it now appears that a good many failures of manhood—physical, material, intellectual, spiritual failures—are directly traceable to a neglected boyhood. Had we been a little more awake and alert, the working boy would have been more considerately treated. The working man would thereupon have been more sober, more thrifty, more domestic, more religious. Had we, in his teen age, built up his character, he would have held on to that character to middle age and the end.

Gradually we have awakened to the fact that the working boys of to-day will be the leaders of America's thought and action a decade hence; that there will be hundreds of thousands of them then as there are now; and that it should pay us to train them well, to cultivate them carefully.

We no longer allow the boy to go to work so early as we used to. He must at least have rounded out a full fourteen

years. There is a continuation school for two years more. And in the eight hours a week of continuation school many a boy who was a misfit in the old schoolhouse is learning more than when he spent thirty irksome, tedious, fidgety hours with a loathed book and an irascible teacher. The teacher in the continuation school knows the working boy and sympathizes.

We are looking after his vocation, too. We do not allow him quite so readily as we used to find a dozen jobs in a twelvemonth, spending two or three or half a dozen of those months in hunting something new. We find what his bent is and we put him to it.

We are only feeling our way in vocational guidance now. But we are feeling it pretty surely. A few years more and we will have found our way, and know better how to show the boy his way.

But, correlated with this and every bit as important, is the building of the boy's character. There is not much building of this sort under his own roof tree. We are talking now of the great army of working boyhood; not gamins necessarily; not tatterdemalions; not essentially immigrants or the sons thereof; but the ordinary—the extremely ordinary—American boy, who stops short of high school, or leaves midway and goes a-working, for his own up-keep and the partial support of a household.

We are learning to guide him industrially. We are doing more than we used to for his intellectual advancement and awakening. We are slow in appreciating that he has a soul and that he is at rock bottom religious.

We are finding this out through the experience of settlements and boys' clubs rather than through the activities of the church. There is no credalism about this boy's soulship. The idea of sect is a thousand miles away from him and his thoughts. But the appeal to his budding manhood, the emphasis laid upon the importance of a clean life and a loyalty to ideals, the stressing of high and sound and eternal character—this is the important thing in the case of the nation's boyhood. Yet it is a thing till now scantily appreciated, lightly spoken of, deliberated, scorned.

There is good reason for this new emphasis. In the highly expensive preparatory schools built for the sons of wealth

and privilege much is made of character building. This is an essential feature of the curriculum. Faculties are chosen on this basic principle. Wise men are imported from afar at great expense to spend an hour in talking to these boys and inspiring them. The moral tone of the school must be high. The millionaire patrons will not send their scions there otherwise.

The same principle in a smaller degree exists in the high school. While it seeks to train hands and intellect chiefly, no first-class high school neglects its function of developing character.

Even the high schools and the prep schools—the colleges and the churches, too—do this rather badly, more or less inadequately. Still they make a strong, determined, even very expensive attempt to do it somehow.

In the case of the working boy there is nothing analogous to this. A very scant proportion of these multitudinous boys may come within the influence of a church or a religious organization. The number is almost negligible. The resultant influence is hard to see. The great bulk of them are left as shepherdless sheep between fourteen to twenty. Yet this is the very plastic time. This is the impressionable age. This is the period when it would pay a neglectful world to look after them and make men of them.

And this is the function of the modern boys' club. This is what the boys' department of the settlement is mainly seeking to do. Along these lines there has been an arousal. People here and there have seen a great light. Civic and industrial and domestic peace and happiness all over the land are depending upon the proper training of boyhood; of that vast multitude of eager, high-spirited, boisterous, aggressive boys who work for a living, and who know not how to go unless somebody shows them.

For these are springing up gymnasiums and swimming pools, dramatic clubs and shower baths, debating societies and basketball courts, soccer teams and running contests. Into these the land's working boys are entering with zeal and enthusiasm. In the use and experience of these they are acquiring real manliness and the genuine spirit of play. Along with this goes the upbuilding of character. Here they find a

fiercer joy than in the revels of the saloon, the tension of the gambling hall. Here the soul of the boy is touched and uplifted. Along with the unfolding of his intellect and the development of his industrial faculties, there comes a glimpse of spiritual vistas, a light beams forth such as never was on sea or land. And this is the new trend of this better time. Slow paced and undefined as yet, but more and more urged and emphasized wherever the boys' club name enters in, and the phrase "working boy" is understood.

It is character, then, that the modern boys' club is chiefly stressing. It is to make the working boy of to-day—who is the working man of to-morrow—a fellow of clean life, of correct principles, of honest endeavor, of high ideals—that is the boys' club's chief end and aim.

Without this main purpose in view the boys' club is but as sounding brass. To keep a hoodlum off the street for a brief half hour, to gather a gamin in for a bit of warmth and cleanliness, to shoe an unshod urchin, to dress up a waif in a panoply of pink shirt and green necktie—this was once regarded as the be-all and the end-all of the boys' club; this plus the inevitable ice cream treat and the semi-occasional picnic.

But this is only a scratch on the surface; this but a mild and unimportant beginning. To train up the working boy in the way he should go; to play the part to him of parent and prep school and physical director and chaplain; to fire him with ambition; to stimulate him with a long, far outlook; to suffuse him with that vision without which the people must perish—this is the chief task of the boys' club.

Boys' clubs for character making ought to be spread from shore to shore. Every populous town—and every town, too, not nearly so populous—ought to have one or more of them. They should not exist for little boys only. They should be primarily, perhaps solely, for boys who work and the younger brothers of these working boys. They should hold on to their boys from the under teen age till they become voters. And along with the athletics, the dramatics, the contests, the debates, underlying and overtopping all should be the studious, deliberate and inevitable building of character.

This is strong men's work. The schools cannot do it, for the boy eludes them too early. The shops will not do it. They regard the boy as a coldly commercial proposition. General superintendents are not typical altruists. Foremen are not habitual character makers. The church might be expected to be doing this work. But facts must be faced. The church is not doing it; nor does it seem greatly interested in the doing of it. But somehow it has got to be done. Great possibilities depend upon the doing of it promptly and aright.

The future of the working boy is a good deal brighter now than it was a few years ago. But the goodly heritage which ought to be his will be lost to him if we allow him to pick up his recreation where he will, to find his sport where he may, to choose his vocation haphazard, to map out his future at random or let it go utterly unmapped; and if—worst of all—we allow the soul of the machine and the heart of the boy to go unguided, unappreciated, forgotten.

## THE CENTRAL ORGANIZATION FOR A DURABLE PEACE

BY MRS. FANNIE FERN ANDREWS

Whether silence or speech should obtain at the present time, whether during war all constructive efforts in behalf of pacific settlement should cease, is a question long since answered. It is a notable fact that during the horrors of the Thirty Years' War, Grotius wrote his treatise on the *Rights of War and Peace*, which was the first systematic statement of the principles of the law which should regulate the conduct of nations in their mutual intercourse. This work, as pointed out by the *American Journal of International Law*, "convinced statesmen, bound nations, and molded the thought of future generations, substituting, as it did, a rule of conduct based upon right reason for mere force." To-day, as we witness the intolerable consequences of violated standards, we stake our only hope on the prospect of a new departure in the development of law and in the subjection of the nations to its rule. What this development will be will depend on generally accepted opinions, for as the nations have appealed to public opinion in all parts of the world to justify their actions in the war, so they will lend a sensitive ear to projects which have been endorsed by any considerable body of people. The moment calls for full and free discussion, for in no other way can wise conclusions be reached. The obligation of the present, then, is to formulate and to promulgate plans which will establish the basis of a new world order.

The International Confidential Meeting held at The Hague in April, 1915, for the purpose of discussing the basis of a durable peace, framed an appeal to the public opinion of the world. The Minimum-Program drawn up by the thirty international jurists, statesmen, economists and publicists, representing Germany, Belgium, England, Austria-Hungary, Italy, Holland, Norway, Sweden, Denmark, Switzerland, and the United States, and offered to the world "as a foundation

for common action," will stand out as an historical attempt to establish permanent peace among the nations. The inspiration of this Confidential Meeting found its source in the revolt against war and in the universal desire to prevent the recurrence of another such catastrophe. Almost simultaneous with the declarations of war in August, 1914, the world had heard the pronouncements by both sides in the struggle that they were fighting for a durable peace, and the peoples were united in this one hope. This group at The Hague, assembled almost within sight of the battlefield, established the value of reasoned argument in the midst of chaos and anarchy. The significance of this meeting lies not so much in the specific program adopted as in the fact that this distinguished and influential group of people, representing both factions and the neutral world, came together in the midst of war and arrived at a common understanding as to the basis of a permanent peace. The meeting was confidential; it was more than a year afterwards that the names of the members representing belligerent countries were disclosed to the world. The magnitude of the event can be measured in the light of successive developments in the great war, while the true outlines of the admirable and far-sighted plan, as summed up in the Minimum-Program, are becoming more and more visible as the sentiments of the nations are now reviewed by the world.

The Central Organization for a Durable Peace, formed by this Confidential Meeting, inaugurated a world-wide study of the proposals laid down in the Minimum-Program. Only so far as the fundamental principles conditioning permanent peace are understood and assented to by the people of the several nations, can we hope to establish principles and institutions which will guard against repetition of another such conflict. The nine points of the Minimum-Program were drawn up with the view of meeting the practical situation after the war. It was the balanced judgment of those who made the program that the establishment of a durable peace involves two steps—the restoration of peace, and the maintenance of peace. It seemed to them reasonable that the people who have carried the heavy burden of the war would reserve to themselves the regulation of the settlement of immediate questions, especially those which touch the political,

financial, and territorial situation. According to this, we might expect that in the congress which will assemble to draw up the terms of peace, there will be a limited number of states, and that consequently the settlement will be made by the same group of men who failed to prevent this most disastrous of wars. But the Minimum-Program is not an arbitrary document. It does not intend to dictate as to the method of restoring peace to this distracted world. If the American theory as indicated by President Wilson is adopted—that the prevention of future wars should be dealt with before the settlement over territory—the Minimum-Program will prove to be just as useful. The essential fact is that the restoration of peace should not be made by reactionaries on the old basis of the balance of power. In order that the settlement may not result in a mere armistice, having in it the seeds of future war, certain fundamental principles must be respected.

The Minimum-Program points out two safeguards, and here it must be emphasized that this is in reality a minimum-program, stipulating only those principles, without adherence to which a durable peace is impossible. The program points first to the principle of nationality. It recognizes that the political frontiers in Europe, coinciding only rarely with the limits of nationalities, are a constant cause of war. The Central Organization for a Durable Peace does not attempt to regulate these conditions, which are the result of an historical evolution, but it insists that whatever may be the issue of the war, the number of such cases may not be augmented by the next treaty of peace. It states definitely that in the annexation or transfer of territory the interests and wishes of the population concerned should be the only point considered, and wherever possible consent should be obtained, by plebiscite or otherwise. The second safeguard is the insistence that states shall introduce in their colonies protectorates and spheres of influence, liberty of commerce, or at least equal treatment for all nations. In this domain we find a fruitful source of conflict, and it is incumbent upon any congress which bases its settlement on the principles of a durable peace to deal with this branch of economic rivalry because of its potency in creating dangerous oppositions and thereby provoking wars.

It is obvious that the Minimum-Program has pointed out only the most fundamental principles necessary for permanent peace. It might with great propriety urge the study of other problems which will arise in fixing the conditions of peace. The meaning and obligation of guarantees of neutrality, the rights and duties of invading armies and civilian populations in occupied territory, the usage of prisoners of war, reprisals, war-zones, the arming of merchantmen, the regulation of submarine warfare, the law of blockade and contraband—all these matters, and many others also, will come up for consideration.

The Central Organization for a Durable Peace provides in its program for the calling of a world conference, representative of all civilized states, to deal with the re-establishment and strengthening of international law, this to be called through the machinery of the Hague Conference. It is evident that the matters mentioned above concern the whole body of civilized states, since there can be no permanent settlement of some of the questions which concern the belligerents until many world questions of international law are satisfactorily dealt with. In this connection, the problem of armaments and the freedom of the sea are especially urged for present consideration.

It is necessary to place a substantial international law and organization behind international security if peace is to be durable. The program proposes, in addition to the Hague Court of Arbitration, a Court of Justice, a Council of Investigation and Conciliation, and the permanent organization of the Hague Conference. Thus no entirely new institution is included in the plan. The Hague Court of Arbitration presents a successful record since its organization in 1902. The Second Hague Conference voted by a large majority the project of a Judicial Arbitration Court, although, as is well known, it failed to realize on account of the difficulties incident to the problem of its composition. The idea of a Council of Investigation and Conciliation for dealing with non-justiciable questions, those indeed which are most likely to lead to war, has developed from the Commission of Inquiry established by the First Hague Conference. Finally, to look forward to the development of the Hague Conference into an international

assembly, meeting periodically to formulate and codify rules of international law, coincides with the vote of the Second Hague Conference in providing for the calling of the Third.

Besides urging the consideration of those principles of durable peace which should govern the territorial and political settlement and the plan for international organization, the Central Organization for a Durable Peace states that the stability of peace will never be maintained by measures of international order alone. In speaking of the limitations of international law, Mr. Rood said: "Law cannot control national policy, and it is through the working of long-continued and persistent national policies that the present war has come. Against such policies all attempts at conciliation and good understanding and good-will among the nations of Europe have been powerless." The Program mentions two measures in this domain which are especially indispensable: First, the guarantee to the national minorities of civil equality, religious liberty and the free use of their native languages. Second, the parliamentary control of foreign politics with interdiction of all secret treaties.

The most striking part of the Minimum-Program, and that which offers a great departure from present international procedure, is the provision for an international treaty, binding states to refer their disputes to a judicial tribunal or to the Council of Investigation and Conciliation, and further to use concerted diplomatic, economic and military pressure against any state that breaks the treaty. According to this plan, we find developed a world League of Peace, which, if supported by a strong public opinion, can come into existence through the action of the world conference to be called after the war. It is not the intention to defer the organization of the League of Peace until all states are willing to sign the treaty. When a number of states of sufficient importance to make the League effective become signatories, it should be declared organized. But it is the intention that the League should always remain open; that it ought, above all, to avoid the character of a political alliance; and that it ought to be, and ought always to remain, a League of Peace.

The Central Organization for a Durable Peace planned at the outset to form national groups in all countries who would make a technical study of the proposals laid down in the Minimum-Program.\* Nine research committees have been organized, representing the nine points of the Minimum-Program. Between fifty and sixty research studies, including nine prepared by members of the American committee, have been published in the volumes of "Recueil de Reports." These studies are very widely used as the basis of technical study and discussion. In estimating the importance of this work, one has only to mention the names of those who are taking part in it. Among those who have prepared research studies are Dr. W. H. de Beaufort, Ex-Minister of Foreign Affairs, and Ex-Prime Minister Heemskerck of Holland, Ex-Minister Adelswärd of Sweden, Professor Lammasch of Austria, Mr. G. Lowes Dickinson, A. Ponsonby, and T. J. Lawrence of England, Professor Altamira of Spain, Professor Halvdan Koht and Mr. Lange of Norway, Professor Michels of Italy, Mr. Stauning of Denmark, Professor André Mercier of Switzerland, General De Meester of Holland, and Professor Schücking of Germany, not to mention our own distinguished group.\*\*

Through the national study groups, which now represent twenty-six nations, this organization is building up a united support of the underlying principles of equitable law, and has thereby become a world factor in influencing the great settle-

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\*Following are the members of the International Executive Committee of the Central Organization for a Durable Peace: Dr. H. C. Dresselhuys, President, Holland; Th. Baron Adelswärd, Sweden; Prof. R. Altamira, Spain; Mrs. Fannie Fern Andrews, United States; G. Lowes Dickinson, Great Britain; Mgr. Dr. A. Giesswein, Hungary; Prof. Dr. H. Koht, Norway; Prof. Dr. H. Lammasch, Austria; Prof. Dr. Achille Loria, Italy; Paul Otlet, Belgium; J. Scherrer-Fülle-mann, Switzerland; Prof. Dr. Walther Schücking, Germany; Th. Stauning, Denmark; Jhr. Dr. B. de Jong van Beek en Donk, General Secretary, The Hague.

\*\*Following are the members of the American Branch: Hamilton Holt, Chairman; Frederick Lynch, Secretary; Mrs. Fannie Fern Andrews, International Corresponding Secretary; Jane Addams, Emily G. Balch, John Barrett, Benjamin F. Battin, John Bates Clark, Samuel T. Dutton, Irving Fisher, Mrs. J. Malcolm Forbes, William I. Hull, David Starr Jordan, George W. Kirchwey, Charles H. Levermore, Louis P. Lochner, Meyer London, Charles S. Macfarland, Edwin D. Mead, George W. Nasmyth, George Foster Peabody, Leo S. Rowe, Mrs. Anna Garlin Spencer, Oscar S. Straus, Thomas Raeburn White, Mary Emma Woolley.

Following are the American authors: David Starr Jordan—Annexation, Plebiscite; Charles H. Levermore—Rights of Nationalities; Admiral French E. Chadwick—The Open Door; William I. Hull—Development of the Hague Conferences; Thomas Raeburn White—Permanent Court of International Justice, Permanent Council of Investigation and Conciliation; Hamilton Holt and Herbert S. Houston—International Sanctions; Mrs. Fannie Fern Andrews—Freedom of the Seas; Denys P. Myers—Parliamentary Control of Foreign Policy.

ment. The effort demands the support of all those who would work for permanent peace. The people of one nation alone, or of a group of nations, cannot effect a new world order; it is a task for the civilized world. The work of the Central Organization for a Durable Peace may be described as a simultaneous world study to prepare for action at the supreme moment of the world's history which we shall witness after the war. This moment will call for high statesmanship—a statesmanship coinciding with liberal public opinion, resting its action on legal principles, and motivated by the desire to establish the eternal laws of justice and humanity.

## SKILL

BY REAR ADMIRAL BRADLEY A. FISKE, U. S. N., (RETIRED)

Quoted from his recently published book, "The Navy As a Fighting Machine."

Whenever one thinks of using skill, he includes in his thought the thing in handling which the skill is employed. One can hardly conceive of using skill except in handling something of the general nature of an instrument, even if the skill is employed in handling something which is not usually called an instrument. For instance, if a man handles an organization with the intent thereby to produce a certain result, the organization is the instrument whereby he attempts to produce the result.

If a man exercises perfect skill, he achieves with his instrument 100 per cent of its possible effect. If he exercises imperfect skill he achieves a smaller percentage of its possible effect.

To analyze the effectiveness of skill, let us coin the phrase, "effective skill," and agree that, if a man produces 100 per cent of the possible, his effective skill is 100 per cent; and in general, that a man's effective skill in using any instrument is expressed by the percentage he achieves of what the instrument can accomplish; that, for instance, if a gun is fired at a given range under given conditions, and 10 per cent hits are made in a given time, then the effective skill employed is 10 per cent.

From this standpoint we see that imperfect skill is largely concerned with errors. If a man uses, say, a gun, with perfect skill, he commits no error in handling the gun; and the smaller the sum total of errors which he commits in handling the gun, the greater his effective skill and the greater the number of hits.

The word "errors," as here used, does not simply mean errors of commission, but means errors of omission as well. If a man, in firing a gun, fails to press the button or trigger

when his sights are on, he makes an error just as truly as the man does who presses the button or trigger when the sights are not on.

Suppose that, in firing a gun, under given conditions of range, etc., the effective skill employed is 10 per cent. This means that 10 per cent of hits are made. But it means another thing equally important—it means that 90 per cent of misses are made. To what are these misses due? Clearly they are due to errors made, not necessarily by the man who fires the gun, but by all the people concerned. If the correct sight-bar range were given to the gun, and if the gun were correctly laid and the pointer pressed the button at precisely the right instant, the shot would hit the target, practically speaking. But, in actual practice, the range-finder makes an error, the spotter makes an error, the plotting-room makes an error, the sight-setter makes an error, and the gun-pointer makes an error. The sum total of all these errors results in 90 per cent of misses.

Suppose that by careful training these errors are reduced in the relation of 9 to 8, so that instead of there being 90 per cent of misses there are only 80 per cent. This does not seem a very difficult thing for training to accomplish, but note the result: the hits are increased from 10 per cent to 20 per cent. In other words, by a decrease in errors in the relation of 9 to 8, the effective skill and the hits are doubled.

Conversely, if the errors increased in the ratio of 9 to 10, the misses would increase from 90 per cent to 100 per cent, and the hits would be reduced from 10 per cent to 0.

Suppose now that the conditions are so very difficult that only 1 per cent of hits is made, or 99 per cent of misses, and that by training, the misses are reduced from 99 per cent to 98 per cent. Clearly, by a decrease of errors of hardly more than 1 per cent the effective skill and the hits are doubled.

Conversely, if the errors increased in the ratio of 99 to 100, the misses would increase from 99 per cent to 100 per cent, and the hits would be reduced from 1 per cent to 0.

But suppose that the conditions are so easy that 90 per cent of hits are made and only 10 per cent of misses. Clearly if the errors are divided by 10, so that only 1 per cent of misses was made, instead of 10 per cent, the number of hits

would increase only 9 per cent, from 90 per cent to 99 per cent.

Of course, this is merely an arithmetical way of expressing the ancient truths, that skill becomes more and more important as the difficulties of handling an instrument increase; and that, no matter how effective an instrument may be when used with perfect skill, the actual result obtained in practice is only the product of its possible performance and the effective skill with which it is used.

Applying this idea to naval matters, we see why the very maximum of skill is required in our war mechanisms and war organizations, in their almost infinite variety and complexity. The war mechanisms and war organizations of the military nations are capable of enormous results, but only when they are used with enormous skill. There are no other instruments or organizations that need so much skill to handle them, because of the difficulties attending their use and the issues at stake. Their development has been a process long and painful. On no other things has so much money been spent; to perfect no other things have so many lives been sacrificed; on no other things, excepting possibly religion, have so many books been written; to no other things has the strenuous exertion of so many minds been devoted; in operating no other things has such a combination of talent and genius and power of will and spirit been employed.

A battleship is an instrument requiring skill to handle well, considered both as a mechanism and as an organization. Its effective handling calls for skill not only on the part of the captain, but on the part of all hands. The finest dreadnaught is ineffective if manned by an ineffective crew. The number and complexity of the mechanisms on board are so great as to stagger the imagination; and the circumstances of modern warfare are so difficult that, as between two forces evenly matched as to material, a comparatively slight advantage in errors made will turn the scale in favor of the more skillful. A difference in errors, for instance, in the relation of 9 to 8, under the conditions mentioned above, between two fleets having an equal number of similar ships, would give one side twice as many hits as the other in any given length of time.

In March, 1905, the writer published an essay in the Proceedings of the U. S. Naval Institute called "American Naval Policy," in which the effect of initial superiority in gunfire was shown in tables. One table showed that an initial advantage of only 10 per cent secured an overwhelming victory by an accumulative effect. Now a difference of 10 per cent in hits, under conditions in which the hits were about 10 per cent of the maximum, would mean, roughly speaking, the difference between 10 hits and 9 hits in a given length of time, or a difference between 90 misses and 91 misses; a difference in errors made of a little more than 1 per cent.

The conclusion to be drawn is too obvious to need to be stated. Perhaps the conclusion is not broadly new; but possibly the idea is new that so small a difference in errors made will, *under conditions of sufficient difficulty*, produce such a tremendous difference in results.

## CONSERVATION AND PREPAREDNESS

BY CHARLES LATHROP PACK

Extracts from the Opening Address as President of the American Forestry Association, Washington, D. C., January 18, 1917.

In the name of The American Forestry Association, I welcome you to this Forestry Conference at Washington.

\* \* \* You are here to consider some of the vital questions of forest conservation, and the better protection and use of this great fundamental resource of the United States and Canada.

\* \* \* You are experts in forestry and natural resources, and representatives of National and local organizations concerned in the development and use of the forests. Coming from Canada and from many States, this Conference is, in effect, a meeting of the representatives of the citizens of these States of the Nation and of the people of Ontario and Quebec.

This is a trying time with those who would protect the forest. New enemies are at work, and you are here to devise plans, ways and means to better protect the forests and better keep and use the great timber resources, which are so valuable and necessary to the economic progress of the United States and Canada. The conservation of the forests is an important factor in National preparedness in this country.

\* \* \* We must have natural resources in abundance back of our Navy and our Army for adequate defense. The life of a navy and of an army would not be safe without it, and conservation, particularly of the forest and the mine and the soil, is a constructive principle essential to the end that we may be prepared. \* \* \* Expert investigation has established that the white and other five-leaved pines of the United States and Canada are threatened by the white pine blister, a fungus disease imported from Europe. Already the disease has been found extensively in New England and in most of the Eastern and Northern States of the white pine belt, and

to some extent in Ontario and Quebec. What you may here consider and determine will have a large influence and effect for better or worse on the future of the white pine, which is admittedly our most valuable northern lumber tree, as well as one of the most beautiful. I need not urge upon you the importance of your deliberations.

The great war in Europe has increased the importance of the economic value of the forest. Germany has ever been in the lead in the practice of dealing scientifically with these matters. One of the interesting mysteries of the present conflict is the source from which the Central Powers obtain the nitro-cellulose necessary in the manufacture of smokeless powder. This, as you all know, is ordinarily made from cotton. Germany does not now have access to the world cotton market. We have information which would indicate that in this emergency the nitro-cellulose used now by Germany is made from wood. The ordinary black powder is composed of fourteen to eighteen parts charcoal, made from certain varieties of wood. For strategic purposes, of course, smokeless powder is preferred on the battle-fields, but very great quantities of black powder are consumed daily by the contending armies. We refer to rosin and turpentine, so largely the product of our Southern pine forests, as "naval stores," but now rosin is employed in large quantities in filling the spaces between the bullets in shrapnel shells, so that when the shells explode the missiles will be evenly distributed in all directions. Gun-stocks, formerly made almost entirely from walnut, are now made from birch, red gum and other woods. Millions of such have during the past few years been made in America. The peculiar style of warfare which the great war has brought forth, necessitates the use of enormous quantities of timber for trench walls, trench floors, braces and stays. Millions and millions of feet are required for buildings behind the fighting lines, for hospitals, for housing non-combatants, for temporary storehouses and the like. Enormous quantities of forest products go into mine props, bridges and for other military preparations.

The ingenuity of Germany has taught her to make a soft and satisfactory absorbent as a substitute for absorbent cotton

for surgical uses, and it is made from wood fiber or cellulose. Nowadays, enormous quantities of cordage and ropes and burlap, rugs and carpets are manufactured from wood fiber and wood pulp. Some may not know it, but many a person, even in this audience, is wearing articles of clothing that are now made wholly or in part from wood fiber. Some beautiful fabrics for ladies' evening wear are made largely of wood fiber and celluloid. The new uses and the increased old uses for the products of the forest increase the economic value of the forest, and add to the importance of all the questions you are here to consider. The effect on the cost of paper is far-reaching, and of great economic consequence.

Germany was well prepared for this World War, and part of her economic preparation was seen in the fact that she has been unequalled in the perfection and practice of forestry. The care for many years with which Germany has protected her timber, and her laws not only compelling in effect the replanting but making replanting profitable and, therefore, economically possible, are among the things that stand out in clear relief from the viewpoint of preparedness.

There is no immediate danger, if we use our forests rightly, of a serious shortage in our lumber supply, but the time is here when the conservation of our forest resources demands more serious and real economic consideration. It seems to me that the conservation of our privately-owned forest resources will never really become effective on a sufficient scale, until there is a prospective profit in practicing forest conservation. Our great National forests, now under Government administration, should be supplemented to a greater extent by State and Municipal forests, as only the Nation, State or the Town can afford to hold forest lands in reservation, the cost of tax exemption forest management, and protection being a burden of all the people, and these properties thus free from the often heavy local taxation of privately-owned forests should be largely held in reserve until logs at the saw-mill are worth the cost of raising the crop.

The official Government figures show that the lumber manufacturer in 1915 received 10 per cent less per 1,000 feet for his product than in 1906. The average of lumber prices

in 1916 at the saw-mills will average little more than those of 1915; and at Southern pine mills not as much as the prices of 1913; and this when the average citizen of this country uses over 400 feet of lumber yearly—more extravagant in the use of lumber than the people of any other land. The best estimate of lumber used in 1916 in the United States was about 42 billion feet as against 38 billion used in 1915. The forest and lumber industry is the greatest of our industries which has not greatly benefited by the World War. There are no “war brides” in the shares of Lumber Companies. Such low prices for lumber at producing points—away below the costs of reproduction through forestry methods—are against the interests desiring the conservation of these resources. You can’t continue to have your cake and eat it too, when you buy your cake at less than the cost of raising the grain and sugar.

The values of the trees in the forest—stumpage values we call them—have in recent years steadily increased, but even at present prices forest trees at the source are the most reasonable crop that grows—cheaper, I believe, than wheat at 25 cents a bushel, or corn at 10 cents a bushel, or cotton at 5 cents a pound. Suppose that cotton or grain were century plants, like large pine trees; it would require a comptometer to compute the price of bread for breakfast.

You can’t produce a dense population of men and a large stand of pine, or hard wood, on the same land. We raise a useful man in, say, twenty to twenty-five years. It takes very much longer to raise a tree useful for wide boards or timber. A boy usually produces little or nothing until he becomes of age. This is equally true of the tree raised for lumber of considerable dimensions. We have been a happy people in consuming forests that were here before we came, but now we must realize that timber, like other crops, must be worth the cost of production.

A striking indication of a better understanding by the public of the problems in forest ownership and lumber production is given by the report of the Special Committee on Natural Resources of the Chamber of Commerce of the United States, which, through Referendum No. 17 of that organization, recommends legislation to permit co-operative

agreements under Federal supervision in those industries which involve primary natural resources on condition that the agreements tend to conserve the resources and promote the public interest. When trade organizations representing every phase of American industry vote in favor of these recommendations—as they have done—it is a most hopeful sign for an ultimate conservation of our natural resources through wise use.

## THE CHURCH WHICH I KNEW BEST

BY JOHN H. FINLEY, LL.D.

AN ADDRESS DELIVERED BEFORE THE PRESBYTERIAN GENERAL  
ASSEMBLY, AT ROCHESTER, N. Y.

When my ego was emerging from the indistinctness of its past eternity into what I am accustomed to call my life, (and it seems as if it were in the Homeric days of the race), I can see a Scotch-Irish Presbyterian singer, who was accustomed to start the hymns of a Sunday, in the prairie church, sitting with closed eyes in a small lighted room, the only one in a square mile of darkness, and I can hear him singing a quaint hymn, which has now disappeared from our hymnology:

"I'm a pilgrim  
And I'm a stranger,  
I can tarry,  
I can tarry,  
But a night.  
Do not detain me,  
For I am going  
To where the fountains  
Are ever flowing.  
I'm a pilgrim  
And I'm a stranger,  
I can tarry,  
I can tarry,  
But a night."

He had come from a little church on the western slopes of the Alleghanies, a church established by his great-grandfather, who was my great-great-grandfather, in a Presbytery reaching from the ridges of the Laurel Hills to the setting sun; and he went on singing in the dawn toward the west, one of the society of frontier Scotch-Irish migrants, who as President Roosevelt has said, were as the spray of the immigration that broke over the Alleghanies, precursors, pilgrims, whose companions in that wandering exile were the

clouds, the migratory birds, the swarming bees, the frogs, the devouring grasshoppers, the seventeen-year locusts and those lean, large-familied brothers of the pioneer, whose white-sailed schooners were ever moving across the level stretches of plain like yachts in the seas and lakes before the coming of the motor-boats.

I can even now hear, accompanying the tune of his confident faith in a celestial destination, the cry of the cranes in their honking migration northward, the lonesome croak of the frogs, as Aristophanes heard them in the ponds of Greece, and the shrill cry of the bloodless grasshoppers, to whom Homer likened Old Priam's chiefs upon the walls of Troy. I can even hear the invisible choir of bees which one day came singing in the sky over my field and were persuaded down to temporary industry on the earth by the clods, I, as a plough-boy, threw up into the air.

For the whole creation seemed to give accompaniment to the song of the faith of those who "confessed that they were strangers and pilgrims on the earth," and that they desired "a better country, that is, an heavenly."

There was a sense of the "illimitable destiny," of the "challenge of eternity," even among those pioneer God-fearing farmers and farmers' wives who lived austere and busily yet calmly and as in the presence of one "whose shadow filled all time." Outwardly, the life seemed a hard life, a gray life, a narrow life. No one actually traveled far, except to go back to one's native place or to search for new fields beyond. But there was a consciousness of the splashing fountains beyond time and space.

These migrants built their houses of wood from sheer necessity, but these ephemeral structures even seemed to express their sense of the transitoriness of their terrestrial life. And the acre of virgin land which they set apart for the church was as the threshing-floor of Ornan the Jebusite or the plot of Obed-Edom in whose house the Ark rested on its journey—a Bethel, a very gate of heaven, on a stoneless, treeless plain.

I should think that I was imagining and imputing too much of other-worldiness to those whose seemingly cheerless lives sat often at such gates, if I had not the testimony of

others to add to my own experience. There is a notable article in a recent number of *The Atlantic* (entitled "Whither?"), which reveals in letters gathered from a generation or two ago (though in another part of the United States as I assume) what I believe was true in my less cultured community—reveals "a far deeper life, a profounder hope and faith, a recognition of wider horizons than most of the contemporary world knows" with all its greater geographical horizons.

And I found recently in a diary this entry concerning a sermon which belonged to that period, a sermon preached about the Atlantic cable:

"The two hemispheres are now successfully united by means of the electric wire, but what is it, after all, compared with the instantaneous communication between the Throne of Divine Grace and the heart of man? Offer up your silent petition. It is transmitted through realms of unmeasured space more rapidly than the lightning's flash, and the answer reaches the soul ere the prayer has died away on the sinner's lips. Yet this telegraph, performing its saving functions ever since Christ died for men on Calvary, fills not the world with exultation and shouts of gladness, with illuminations and bonfires and the booming of cannon. The reason is, one is the telegraph of this world and may produce revolutions on earth; the other is the sweet communication between Christ and the Christian soul and will secure a glorious immortality in Heaven."

It was at that very time of this Homeric Presbyterian singing out on the prairies by one whose kinsman had invented the telegraph that there was sung here in the Atlantic Seaboard States that crude melody, very like a topical song of more recent days, which ran, as nearly as I can remember:

"Far out upon the prairies  
How many children dwell,  
Who never read the Bible  
Nor hear the Sabbath bell?  
And when the holy morning  
Wakes us to sing and pray,  
They spend the blessed moments  
In idleness and play."

And we prairie children, using an Eastern book, I suppose, sang it, too, never realizing that we were of those whom the song-writer had pityingly in mind.

Fortunately, out on those prairies, though there were few Sabbath bells, the children who dwelt there did read the Bible, and if there was aught of "idleness or play" it was of a most pious and sober sort. At any rate, it was so, if I may generalize from the habits of the little community which made that country church that I knew best its center.

A metropolitan reporter who has talked with me within a week said that when President Wilson made the famous threat of hanging certain people "higher than Haman," he and his fellow-reporters had no notion as to who Haman was—but I venture to say that there was no one of teachable mind and literate age in that little prairie church who was not as familiar with the characters of the Bible, Haman included, as these reporters were with the men in the street where President Wilson proposed to erect the gallows.

I do not know that it is more culpable culturally not to be familiar with the proud Biblical characters whom Dante found in Purgatory (Nimrod, Saul on dewless and rainless Gilboa, Rehoboam and the sons of Sennacherib) than with the alternate classical representatives of Pride whom he also found there, but I am certain that no human life can well Orient itself with respect to the two eternities between which we journey across this earth, unless it have some guidance of the theocratic experience of those whom Nimrod and Saul and Rehoboam represent.

There has been bitter discussion of late as to whether the teachers in the public schools of this State should be compelled to read ten verses of the Bible daily to the pupils of the school. I believe that every child, youth, man and woman should read that Book, and I hope that men of all faiths can agree to have parts of it at least read *to* and *by* all our children, whatever their faith, or their parents' faith, but a State giving welcome to all creeds, cannot in its public schools, which it taxes all to support and which it wishes the children of all to enter, impose any religious teaching without contravening the very principle of freedom that is at the foundation of this republic of diverse traditions, tongues and creeds. And even if it could without violence to this principle do so, there would be danger of engendering hatreds which might outweigh or defeat all the good sought to be achieved.

The little church stood across the road from the school-house, and there were other churches, Catholic, Lutheran, Methodist, not far away which, with this one, ministered to practically all the children within a radius of three or four miles. The Bible was not read regularly, if it was read at all, in the school, but every child, Catholic, Presbyterian, Lutheran or Methodist, had instruction in the Bible by parent, preacher, priest or Sunday School teacher. And I am thinking that what existed there in that primitive community should, for the integrity of our life, be made possible under the changed and heterogeneous social conditions which now obtain. With our varying creeds the religious teacher may not come with his or her particular creed into the school, but that should not prevent a co-operation between school and church or between school and home which will insure the religious teaching of every child outside the school. The time has come for Protestant and Catholic and Jew and Gentile to co-operate to the end that every child may have what in practice every child in that prairie community had, an intimation at least, of his moral and religious inheritance. We should go as far as our common creeds will let us in our moral and ethical teaching in the schools of our common preparation for democracy's obligation. The boundaries between ethics and religion are not clearly marked. But where that zone is reached, the church and the home must lead the soul of the child, and if the State have an obligation, it is only to see that no child is neglected.

So, I go back across the road from the schoolhouse to the little church, the church in which the unseen became the real, and the eternal seemed more important than the diurnal.

Arthur O'Shaughnessy, in that possessing poem on John the Baptist, said:

"I think he had not heard of the far towns,  
Nor of the deeds of men, nor of king's crowns  
Before the thought of God took hold of him  
As he was sitting dreaming in the calm  
Of one first noon upon the desert's rim."

And I have been asking myself often of late, are the noises of the far towns, these daily reports of the deeds of men, these gossips about king's crowns, are these to take away

all thought of the Supreme Mystery, even from those who dwell in wildernesses, penetrated as they are by telephones and newspapers? The majestic images of the gods walked through every assemblage of the ancient Greek world; they inhabited every atmosphere. And in the indistinct light of the Middle Age they were the supreme images. Even Dante employed angels to move the crystal spheres about in his universe.

But it is the great problem of this day in which there are no longer secret places for the residence of the supernatural on the globe, in which there is nothing "unknown this side of the moon," in which the great mystery of creation has been pushed back millions of years and beyond the sight of the strongest microscope, and the other great mystery of death forward into conceivable immortality, it is the great problem to keep the thought which took hold of John in the Wilderness, or even give it chance to take hold of us. For the victories of the physical afar are, after all, of no value unless the spirits of men become more valorous, more independent of passion or prejudice, by reason of them, unless the mobile creature grows in its higher characteristics toward the perfect being, whom the Christian world has in its imagery endowed with wings. They are to be of less than no value to us if they are to keep our eyes from the unseen afar, if they are to rob us of eternity and bring the "sky like a brass bowl down over our heads" instead of setting golden ladders that shall let us climb athwart its openings to sight of His calm face Whose "shadow fills all Time," or if they are to take out of our hearts the reach and longing of that migrant's song:

"I'm a pilgrim and I'm a stranger,  
I can tarry, I can tarry, but a night.  
Do not detain me, for I am going  
To where the fountains are ever flowing.

"I'm a pilgrim and I'm a stranger,  
I can tarry, I can tarry, but a night."

## THE YEAR'S WORK IN LABRADOR

BY WILFRED T. GRENFELL, M.D., C.N.G.

The peripatetic character of our work, and the diversity of lines along which we are endeavoring to attain our objective, make it very difficult, Mr. Editor, for any of us to spare time for accounting for our methods, highly as we estimate the value such self-examination always returns to ourselves.

Education being the most far-reaching road to permanent improvement of men's physical conditions, as well as to uplift in moral and spiritual—we have been emphasizing that aspect of our endeavors through the past years. Sectarian schools, especially when their efforts are confined to letters and figures, can never educate those whose horizon of life is limited to the experiences of tiny isolated seacoast villages. Moreover, the mere numbers of these isolated little centers make it impossible to afford to all of them even those dry bones as a basis for character expansion.

A club of lady-educators has assisted us in this problem by sending down an increasing number of volunteers, all of whom are willing, at their own cost, to come and spend their summer vacations in just such a work—the results of which are already being characterized by some of our critics as the best work we have inaugurated. The results of these efforts are far beyond the immediate advance in *literae humaniores*, a very real gain being in the widened horizon and the permanent friendship of people really educated by living in the modern world.

So far-reaching is the scope of this humble effort, it may be as well here to suggest, say some line, along which it is showing its fruits. One of the worst troubles of the fishermen is generally dubbed by them "rheumatics." It means arthritides or myalgias, which are now absolutely known to depend not on exposure to varying temperatures, which only raise physical vitality and resistance, but on toxins resulting

from germ invasion. Over and over again our people have had absolute ocular demonstration that whole-meal flour will save them from the horrors of beri-beri. Yet when their limited purchasing power affords them no chance of salvation from a varied winter food supply, they still almost invariably order some brand of the white.

Is it to be wondered at then that to teach them to use tooth brushes, because alveolar infections are the common source of these "rheumatic" troubles was apparently hopeless, and that we rejoiced when one sensible fellow said, "Doctor, I have only one grudge against my parents. They never taught me to look after my teeth." It was peculiarly satisfactory to have three grown men come in one day last week to buy tooth brushes and powder, and hear each one confess that the stimulus had been applied by the "summer school-marm." They had hitherto only considered these things as extravagances of the plutocrat.

Some years ago at our bases in St. John's, Newfoundland, in the south, and at St. Anthony in the north, we established a nucleus for loan libraries. To circulate the books, portable boxes were made containing from fifty to one hundred assorted books, which were scattered along the coast, and changed yearly by the hospital steamer as she went her rounds. Experience showed that without attractive reading matter ability to read soon declined, and even large picture books did not tempt our intellects satisfactorily. So a New York social teacher, who we call our "story teller," is now patrolling the villages, and efficiently performing the function of the needed ferment, at the same time consolidating the work by uniting all in one scheme.

The denominational school system still handicaps the utility of the few "schoolets" that are provided around the coast, but we have at last one fine graded school of our own, undenominational and developing, instead of making additional barriers against, those valuable communal influences that our isolation robs us of.

The natural development of a wide range of mechanical ability in the individual has demonstrated itself nowhere more clearly than in our lads who have gone to the front in this war. Through the motor centers, higher centers are evolved,

and the sending each year of scholars to industrial and trade schools, as funds become available, is invaluable as giving an altogether higher type of parent for the next generation; in stimulating ambition in naturally conservative and short-sighted young folk; and offering a higher type of worker to initiate new industries, that alone promise any solution of the difficult problem of how to fill the hours of forced inactivity, and balance the vicissitudes of earning capacities dependent on the vagaries of fish or fur. To abandon a great food and fur providing country, and crowd to the already crowded centers because the problems are difficult, is admission of an inefficiency and lack of courage that, alas! cannot make nations.

The slow advance along these lines has been, no doubt, partly due to our own lack of vision and administrative ability, but more finances also are needed to put this unquestionable effort on a wider and more far-reaching basis, and enable us in some degree to give opportunity to brighter children in the lonelier hamlets. To develop their latent capacity, we have extended the work to our Children's and Orphans' Home, and not being able yet to afford a boarding school, have admitted one or two children for the fostering of their intellects rather than their mere physical attributes. The total cost of keeping such a child, inclusive of clothing, food, board and education, is about one hundred dollars per annum—the cost of necessities of all kinds being increased by the war. In our hospital work, though our launches, and especially our hospital ship, enables us to do our best preventive work, we feel that centralization gives better results, and the generous volunteer help of specialists in eye work, throat work, gynecological and dental work increasingly gives our clinics, especially at St. Anthony, the northern base, sufficient reputation to bring in cases early enough to offer us a chance to render efficient service.

Nor do we fall into the error that seems inseparable from the hospital service in big populous centers at home of pauperizing along these lines—every patient being asked to contribute toward expenses, and most of them gladly doing so. The psychological effect of treatment is thus greatly enhanced among a people who ordinarily live on a credit system of

finance, for they conceive the things they have to pay for proportionately more worth while.

Nowhere, however, can be more clearly emphasized the need for the association of practical sociological work on economic lines *pari passu* with the efforts of the surgeon and physician. The isolation of the people's homes makes etiology of their troubles so much more obvious than in the crowded purlieus, that often obscure the real causative factor. So many of our diseases being due to dietetic deficiency, the poor economy of removing a tuberculosis focus, or weaning back to usefulness limbs paralyzed and wasted by beri-beri, and then returning the patient to exposure to similar conditions, is so obvious as to make it impossible for us to limit our treatment to knives or drugs. To increase the earning capacity and diminish the cost of distribution were prime essentials, and labor being their only inalienable asset we have tried many ways to convert it into cash along lines not hitherto available.

Another new co-operative distributive store, both for marketing their produce and distributing the necessities of life, promises to be so material an advantage to that section of the coast, so long as it can obtain the brain to steer it, that already the possibility of co-operative lumber work in their district is being discussed—the machinery, etc., to be financed co-operatively from the money saved for the first time in their lives, by not a few of the members.

An application for a timber grant is before the Government, and there seems every indication that it will be shortly granted. It is hoped that then a village will be laid out around the harbor selected, a harbor never previously occupied, and yet central and in every way propitious for winter residence, and winter location of a hospital and school. Another source of waste is undoubtedly ignorance of how to get the best out of what we do possess; and in young motherhood and in home dieting, waste and losses occur largely through lack of knowledge. A special effort to meet this has been made by distributing everywhere most excellent literature, published by the Baby Welfare campaign last year, and by co-operation with a friend, who sent round all our district last year a lady doctor—a specialist in food economics. This lady stirred up very considerable thought. We need more efforts like it,

especially with experimental demonstrations with cheap foods and how to prepare them. As soon as we can finance it, two of our girls will be sent to take special work in the States along these lines. The drab and featureless lives of young women, and their unused ability has led us to increase greatly our efforts to find them occupation. One trained at the Pratt is finding plenty of work as a professional dressmaker. Much more generally valuable, however, has been the starting of a hooked mat industry, a distinctly native handicraft that needed only the development of good local scene patterns, and the securing of a market to make it go. Besides the regular sale in a New York store an increasing number of private orders are being sent to us for a product that is attractive, durable, useful and inexpensive, and which will win its own way wherever it becomes known. Orders for these mats, and for ornamental deerskin work, and for very excellent grass-woven basket work, and for carved models of local life, and also for artificial flowers, woollen homespun, woven rabbit rugs, are being handled through the industrial department, and we should value very highly any orders sent to me, addressed St. Anthony, Newfoundland. The war has made more needful than ever this addition to the wage-earning capacity of our people.

Other efforts through the central institute at St. John's to combat the liquor traffic at the center of our fish trade have been no small factor in securing a prohibition measure that comes automatically into force on the first day of next January. The idealism, and the beautiful accommodations this building offers in both its girls' and men's sections, is fostering a familiarity with higher ideals that shows its reflex in the people's ambition to secure similar blessings in their own homes.

The work in the direction of developing the agricultural possibilities in our country has also made quite considerable progress during the last year or two. The produce in our little experimental farm has enabled us to win the congratulations of the Board of Agriculture; and if only we can now supply the administrative ability requisite we believe that very considerable opportunity can be seized along that line.

This year there returned to our Labrador coast the large Labrador herring that were so famous and fetched such remunerative prices formerly. But in spite of the immense need for proteins and hydrocarbon food in these days of scarcity, millions of barrels were allowed to swim away untouched just for want of barrels, salt and preparations necessary to market the herring. A few barrels caught and packed on our farm in barrels made on the spot while the land was being cleared gave a fine return to encourage further efforts next year. We are in touch with herring dealers in the States, but were too late to do anything of importance—a few hundred barrels were sent from one of the co-operative stores. Capital is needed to prepare for this industry next season. Fortunately, those interested more directly in business are working on schemes that will give us more efficient development of our great fish food resources, and a most promising scheme is on foot to put large quantities of fresh fish into the market next year, which would be much more remunerative to our men.

The reindeer experiment, which began some five years ago, has demonstrated how easily that industry, so fruitful in Alaska, might be duplicated in our endless miles of barrens; but lack of Government protection and assistance has caused a setback in our small effort, which needs more capital, more efficient supervision than we can exercise to get it properly under way as that given by the Board of Education last year. We have not been able to find the opportunity to give the time to this enterprise that it deserves. That North Newfoundland and Labrador offer a fertile field for greatly increasing productive development in the future, and being made to support well a hardy and valuable race of people is, in my mind, beyond all question.

## BISHOP BRENT'S MISSION TO THE MOROS

Bishop Brent's work in the Philippines was made the subject of special eulogy by the Honorable Dean C. Worcester, Secretary of the Interior of the Philippines from 1901-1913. "I wish," he says, "not only to endorse heartily, but to emphasize strongly the importance of the work Bishop Charles H. Brent is doing in the Philippine Islands, especially among the Moros. No truer words were ever spoken than the statements of Bishop Brent concerning his constructive program among the Moros, when he said: 'Here is a man's mission—religion expressed in work. It would be futile at this juncture, except in unusual circumstances, to preach to the Moro. The history of his race has been such as to close his mind to Christian appeal. We must live our Christianity with him. The hospital, the school and the playground must be our pulpit.'"

The Moros, it must be remembered, are of Malay stock, with here and there some Arabian or other Asiatic blood. They were Mohammadans for several centuries before Magallanes discovered the Philippines (1521). Their religion and their proclivity to live by the sword has isolated them from their milder Christian kinsfolk to the north. Pride of race and creed have made them resist every attempt to merge them into the civilization of the rest of the Archipelago. They have been in constant revolt against all outside power, and certain sections of their territory, notably the beautiful Island of Sulu, are literally soaked with blood.

It was in 1912, with the backing of General J. J. Pershing, the last military governor of the Moro Province, that the movement in behalf of the Moros first took definite shape. The measure of success thus far achieved has been made possible by the interest and support of the Honorable F. W. Carpenter, who succeeded General Pershing in office as the first civil Governor of this Department.

The Sultan, ranking Mohammadan official among the Moros, his Prime Minister (Hadji Butu), and other prominent

Moros have addressed an open letter to the American people, expressing confidence in Bishop Brent's plans and asking for the necessary support to make them effective. The translation reads as follows:

"We, the undersigned, have faith in the efforts of Bishop Brent and his fellow-workers to help the Sug people.

"We want him to carry out the plans he has laid before us. We need the schools and medical work he describes, and we appreciate what has already been done by his group of volunteer workers and their associates now with us.

"We hope the American people will give Bishop Brent the support needed.

"We will give him all the help we can."

Bishop Brent found that medical work was a powerful avenue of approach to the adult Moro, without whose confidence it would have been impossible to approach the children. Therefore, a hospital of twenty-six beds, with modern plumbing and electric lighting throughout, was opened in Zamboanga in 1914. Until then the medical work had been done by the officers of the United States Army Medical Corps with the assistance of native nurses. In June, 1915, Dr. C. H. Halliday assumed charge of the Zamboanga Hospital. The field is enormous, and more doctors and nurses are needed.

Meanwhile, a Hospital Ship was planned, to be called by the Moro name for "The Friend," and which, like Dr. Grenfell's medical ship in Labrador, is to make regular trips among the Islands. The plan was then accepted by the Philippine Government, in conjunction with the Rockefeller Foundation, as one of the most valuable single agencies possible for bringing succor, knowledge and friendly attention to the 200,000 or more people on the many islands in the Sulu Archipelago. The Government has provided the necessary ship for a period of five years, and the Rockefeller Foundation have furnished the funds to operate the ship for the same length of time.

The Moro children, so the reports read, are as impressive, as appealing, as lovable as any children of any color in the whole world. Many of them are orphans, made so by American rifles. There is no enmity in their faces; they are as friendly as can be, ready always with a smile and a greeting.

The eyes of the Moro child are bright and deep, his forehead is fairly high, and the shape of his head denotes mental capacity. He is inventive, wiry, musical, artistic. He gives grounds for expectation and hope, for he is bold and brave, deft and skillful, resourceful and persevering. He has a real thirst for knowledge, and a knack for work. All he needs is to *know how* to do things for himself, his family and his race.

His forefathers were mighty warriors. For three hundred years they resisted Spain. By official act the United States Government has taken the Moro's weapons away from him, and in so doing outraged all his leading instincts. Necessary as the disarmament of the Moro has been, it is only a first step. We must put the tools of farm and shop in the place of sword and rifle—otherwise his hands will resort to evil; they cannot be idle.

His little sister vies with him in promise. She, too, has nimble fingers and a good brain. The women of her tribe make laces and embroideries, weave hats and mats, fashion beads and shells and pearls into articles of ornament and use, make themselves attractive and helpful as they can, with their limited knowledge of the finer things of life.

For the benefit of these boys, then, an Agricultural School was opened at Indanans on the Island of Jolo, and is now under the able direction of Ex-Governor James Fugate. At its opening, people from all parts of Sulu participated. They represented every class—from the aristocracy, including members of the Sultan's family, princesses and datus—to the peasant and the hill folk. This school now has about fifty boys representing every class in society. Intensive farming will be taught the boys on rich and productive land, and Bishop Brent plans to broaden the agricultural work as fast as means will permit, and encourage the Moros to build and settle on plots of adjoining land. Instructions in developing the crops will be given by the school, and by degrees a self-protecting community will be built up, marking a new era for the Sug people. Academic work will be suited to the capacity and demand of the pupils, while simple carpentry and other industrial instruction will complete the curriculum.

For their benefit, also, Bishop Brent has established the Moro Press, a printing plant operated by Moro boys. A

monthly paper is issued, printed from the only Moro type in the world. This paper is distributed and quite widely read throughout the Sulu Archipelago. Books are also being issued from the Moro Press, one a grammar by Dr. Saleeby, and one a book on "Authography and Transliteration." It is proposed to publish the Bible in Moro when translated.

Two years ago a troupe of Moro Boy Scouts, known as the "Spencer Troup," was organized by Lieutenant Sherman Kiser, and is now in charge of Lieutenant Tiffany of the Philippine Constabulary.

For the benefit of the girls, on the other hand, the "Moro Exchange" is being operated by Bishop Brent, where weaving and lace-making are being done by the Moro women and girls. This "Exchange" at present pays its running expenses. The Moro women are capable of becoming excellent lace-makers, and plans are now being perfected for an Industrial School for Girls.

The question is often asked, "Why the Government does not do all the necessary work among the Moros?" The Government is using every endeavor to promote the establishment of agencies of Mercy and Education, only to find that its meagre revenue will enable it to do little more than to touch the hem of the need.

On Bishop Brent's local advisory committee in the Philippines are Reverend J. B. Rodgers, D.D., of the Presbyterian Church; Dr. N. M. Saleeby, formerly Superintendent of Education in the Moro Province, and Mr. R. E. Clarke, who as an officer of the United States Army has lived among the Moros.

The Moro Work in this country is under the auspices of a National Committee. Several State Committees have also been organized, including New York, Massachusetts, Rhode Island, Pennsylvania and Maryland. The National Treasurer is Mr. Willard Straight, 120 Broadway, New York City.

Among the members of the Executive Committee of the National Committee are Mrs. Nathaniel Bowditch Potter, who is also chairman of the New York Committee; Mr. Willard Straight, who is treasurer; Mr. George Wharton Pepper, Mrs. C. Lorillard Spencer, Mr. John T. Pratt and Mr. Gano Dunn. The vice-chairmen are Joseph H. Choate, Lloyd C.

Griscom, William Fellowes Morgan, George Wharton Pepper, William Jay Schieffelin and Lorillard Spencer. Among the members of the National Committee are Miss Mabel T. Boardman, Miss Kate Bond, Francis E. Clark, D.D., Miss Juliana Cutting, Admiral George Dewey, Mrs. Adam Denmead, Mrs. Henry M. Flagler, Mrs. L. L. Funk, Ralph M. Grant, Mrs. Henry Winthrop Gray, Major Henry L. Higinson, Honorable Richmond Pearson Hobson, Henry C. King, LL.D., Henry Spies Kip, Mrs. Henry Cabot Lodge, Mrs. Seth Low, Miss Eliza B. Masters, William R. Moody, Miss Clara Morehouse, Miss Anne Morgan, John R. Mott, Mrs. P. V. Pennypacker, Raymond Robins, Mrs. W. Emlen Roosevelt, Fred B. Smith, Mrs. Myles Standish, Rear Admiral Charles H. Stockton, Mr. and Mrs. I. N. Phelps Stokes, Mrs. William H. Taft, Mrs. Mary Logan Tucker, Major-General Leonard Wood and General Marcus J. Wright.

Of Bishop Brent's work our own Dr. Hamilton W. Mabie once said: "The East is peculiarly sensitive to personality and to kindness. A man who expresses integrity, helpfulness and love wins the heart of the Oriental and exerts an influence which is not within the reach of any kind of force. The personality of Bishop Brent counteracts the evil influence of an army of exploiters."

Mrs. C. Lorillard Spencer, who has lived for nearly a year among the Moros, also speaks of their ready responsiveness to kindness. The first day she and Miss Young went out among them they were accompanied by Bishop Brent and an armed escort, and took the precaution to leave a note of instruction, telling the banker what should be done in case they did not return. After a few weeks she and Miss Young went out alone. The Moros soon learned to trust them. "We were," she says, "the guests of honor at weddings and baptisms, and were always treated with the utmost courtesy."

## HIGH FINANCE

BY OTTO H. KAHN

ADDRESS DELIVERED AT ANNUAL DINNER, AMERICAN  
NEWSPAPER PUBLISHERS ASSOCIATION, 1916

The term "high finance" derives its origin from the French "haute finance," which in France as elsewhere in Europe designates the most eminently respectable, the most unqualifiedly trustworthy amongst financial houses.

Why has that term, in becoming acclimated in this country, gradually come to suggest a rather different meaning?

Why does there exist in the United States, alone amongst the great nations, a widespread attitude of suspicion, indeed in many quarters, of virtual hostility, toward the financial community and especially toward the financial activities which focus in New York, the country's financial capital?

There are a number of causes and for some of them finance cannot be absolved from responsibility. But the primary underlying and continuing cause is lack of clear appreciation of what finance means and stands for and is needed for. And from this there has sprung a veritable host of misconceptions, prejudices, superstitions and catch-phrases.

Never was it of more importance than in the present emergency that the people should have a clear and correct understanding of the meaning and significance of finance, indeed of "high finance," and that they should approach the subject calmly and dispassionately and with untroubled vision, for when the European war is over and the period of reconstruction sets in, one of the most vital questions of the day will be that of finance and financing.

The handling and adjustment of that question, although it primarily concerns Europe, cannot fail to affect America favorably or unfavorably, according to the wisdom or lack of wisdom of our own attitude and actions.

A great many things are being and have been charged in the popular view against finance, with which finance, properly understood, has nothing to do.

The possession of wealth does not make a man a financier—just as little as the possession of a chest of tools makes a man a carpenter.

Finance does not mean speculation—although speculation when it does not degenerate into mere gambling has a proper and legitimate place in the scheme of things economic. Finance most emphatically does not mean fleecing the public, nor fattening parasitically off the industry and commerce of the country.

Finance cannot properly be held responsible for the exploits, good, bad or indifferent, of the man who, having made money at manufacturing, or mining, or in other commercial pursuits, blows into town, either physically or by telephone or telegraph, and goes on a financial spree, more or less prolonged.

Finance means constructive work. It means mobilizing and organizing the wealth of the country so that the scattered monetary resources of the individuals may be united and guided into a mighty current of fruitful co-operation—a hundredfold, nay ten-thousandfold as potent as they would or could be in individual hands.

Finance means promoting and facilitating the country's trade at home and abroad, creating new wealth, making new jobs for workmen.

It means continuous study of the conditions prevailing throughout the world. It means daring and imagination combined with care and foresight and integrity, and hard, wearing work—much of it not compensated, because of every ten propositions submitted to the scrutiny or evolved by the brain of the financier who is duly careful of his reputation and conscious of his responsibility to the public, it is safe to say that not more than three materialize.

For the financial offspring of which he acknowledges parentage, or merely godfathership, he is held responsible by the public for better or for worse, and will continue to be held responsible notwithstanding certain ill-advised provisions of the recently enacted Clayton Anti-Trust Act which are bound to make it more difficult for him to discharge that responsibility.

Amongst other functions and duties, it is "up to him" to look ahead, so that such offspring may always be provided with nouriture, *i. e.*, with funds to conduct their business. If for one reason or another they find themselves short of means in difficult times, it is his task and care to find ways and means to obtain what is needed, sometimes at great financial risk to himself.

It is perhaps significant that almost all the railroad companies now in receivers' hands were among those for whose financial policy no one amongst the leading banking houses had a continuous and recognized responsibility, though I must not be understood as meaning to suggest that there were not other contributory causes for such receivership, involving responsibility and blame, amongst others, also on members of the banking fraternity.

Without going into shades of encyclopedic meaning, I would define, for the purpose of this discussion, a financier as a man who has some recognized relation and responsibility toward the larger monetary affairs of the public, either by administering deposits and loaning funds or by being a whole-sale or retail distributor of securities.

To all such the confidence of the financial community, which naturally knows them best, and of the investing public is absolutely vital. Without it, they simply cannot live.

To provide for the thousands of millions of dollars annually needed by our railroads and other industries, would vastly overtax the resources of all the greatest financial houses and groups taken together, and therefore the financier or group of financiers undertaking such transactions *must* depend in the first instance upon the co-operation of *the financial community at large*. For this purpose such houses or groups associate with themselves for every transaction of considerable size, a large number of other houses, thus forming so-called syndicates.

But even the resources thus combined of the entire financial community would fall far short of being sufficient to supply the needed funds for more than a very limited time, and appeal must therefore be made to *the absorbing power of the country as a whole* represented by the ultimate investor.

Now, let a financial house, either through lack of a high standard of integrity in dealing with the public, or through lack of thoroughness and care, or through bad judgment, forfeit the confidence of its neighbors or of the investing public, and the very roots of its being are cut.

I do not mean to claim that high finance has not in some instances strayed from the highest standard, that it has not made mistakes, that it has not at times yielded to temptation—and the temptations which beset its path are indeed many—that there have not been some occurrences which every right thinking man must deplore and condemn.

But I do say and claim that practically all such instances have occurred during what may be termed the country's industrial and economic pioneer period, a period of vast and unparalleled concentration of national energy and effort upon material achievement, of tremendous and turbulent surging towards tangible accomplishment, of sheer individualism, a period of lax enforcement of the laws by those in authority, of uncertainty regarding the meaning of the statutes relating to business and, consequently, of impatience at restraint and a weakened sense of the fear, respect and obedience due to the law.

In the mighty and blinding rush of that whirlwind of enterprise and achievement things were done—generally without any attempt at concealment, in the open light of day for everyone to behold—which would not accord with our present ethical and legal standards, and public opinion permitted them to be done.

To quote one instance out of many: Campaign contributions by corporations were a recognized and almost universal practice. The acceptance of such contributions did not shock the most tender political conscience. Now they are rightly forbidden, and what up to a few short years ago was not only not prohibited but sanctioned by the custom of a generation and more, is now made and considered a crime.

Then suddenly a mirror was held up by influences sufficiently powerful to cause the mad race to halt for a moment and to compel the concentrated attention of all the people. And that mirror clearly showed, perhaps it even magnified, the blemishes on that which it reflected.

With their recognition came stern insistence upon change, and very quickly the realization of that demand. That is the normal process of civilization in its march forward and upward.

And I claim that Finance has been as quick and willing as any other element in the community to discern the moral obligations of the new era brought about within the last ten years and to align itself on their side.

As soon as the meaning of the laws under which business was to be conducted had come to be reasonably defined, as soon as it became apparent that the latitude tacitly permitted during the pioneer period must end, finance fell into line with the new spirit and has kept in line.

I say this notwithstanding the various investigations that have since taken place, nearly all of which have dealt with incidents that occurred several years ago.

And in this connection I would add that it is difficult to imagine anything more unfair than the theory and method of these investigations as all too frequently conducted.

The appeal all too often is to the gallery, hungry for sensation; the method—to wash as much soiled linen as possible in public (even, if necessary, to make clean linen appear soiled), and to use a profusion of soap and water quite out of proportion to the actual cleaning to be done.

To innocent transactions it is sought to give a sinister meaning; what lapses, faults or wrongs may be discovered are given exaggerated portent and significance.

The Chairman is out to make a record, or to fortify a preconceived notion or accomplish a preconceived purpose.

Counsel is out to make a record. The principle witnesses are placed in the position of defendants at the bar without being protected by any of the safeguards which are thrown around defendants in a court of law.

To complete the picture, I must—saving your presence—add this other patch of black: The reporting is very frequently, if not generally, done by young men not very familiar with matters of finance and in search of incident and of high light rather than of the neutral tints of a sober and even record; and the job of head-lining seems somehow to be entrusted always to a mortal enemy of the particular

witnesses of each session, selected with great care for his ingenuity in compressing the maximum of poison gases into a few explosive words.

It may all be legitimate, according to political standards, but it is not justice, and what of benefit is accomplished could equally well be obtained, whatever of guilt is to be revealed could equally well and probably better be disclosed, without resorting to inflammatory appeal and without, by assault or innuendo, recklessly and often indiscriminately besmirching reputations and hurting before the whole world the good name of American business.

I do not know of any similar method and practice and spirit of conducting investigations in any other country.

By all means let us delve deep wherever we have reason to suspect that guilt lies buried. Let us take short cuts to arrive at the truth, but let us be sure that it is the truth that we shall meet at the end of our road, and not a mongrel thing wearing some of the garments of truth, but some others, too, belonging to that trinity of unlovely sisters, passion, prejudice and self-seeking.

In many ways, in many instances, wrong impressions about finance have been given to the public, sometimes from ignorance, sometimes with malice aforethought, sometimes for political purposes.

The fact is that the men in charge of our financial affairs are, and to be successful, must be every whit as honorable, as patriotic, as right thinking, as anxious for the good opinions of their fellowmen as those in other walks of life.

In every time of crisis or difficulty in the nation's history, from the War of Independence to the present European War, financiers have given striking proof of their devotion of the public weal, and they may be depended upon to do so whenever and howsoever called upon.

American finance has rendered immense services to the country, and its record—considering especially the gross faultiness of the laws under which it had to work before the passage of the Federal Reserve Act, and in some respects still has to work—compares by no means unfavorably with that of finance in Europe.

There has been no gambling frenzy in the financial markets of America within the memory of this generation equalling the recklessness and magnitude of England's South African mining craze with its record of questionable episodes, some of them involving great names; no scandal comparable to the Panama scandal, the copper collapse, the Cronier failure, and similar events in France; no bank failure as disgraceful and ruinous as that of the Leipziger Bank and two or three others within the last dozen years in Germany. No combination exists in this country remotely approaching the monopolistic control exercised by several of the so-called cartels and syndicates of Europe.

One of the reasons why finance so frequently has been the target for popular attack is that it deals with the tangible expression of wealth, and in the popular mind pre-eminently personifies wealth, and is widely looked upon as an easy way to acquire wealth without adequate service.

Yet it is a fact that there are very few financial houses of great wealth. All of the very greatest fortunes of the country, and in fact most of the great fortunes, have been made, not in finance, but in trade, industries and inventions.

A similar exaggerated view prevails as to the power of finance.

It is true there have been men in finance from time to time, though very rarely indeed, who did exercise exceedingly great power, such as, in our generation, the late J. P. Morgan and E. H. Harriman.

But the power of those men rested not in their being financiers, but in the compelling force of their unique personalities. They were born leaders of men and they would have been acknowledged leaders and exercised the power of such leadership in whatever walk of life they might have selected as theirs.

As I have said before, the capacity of the financier is dependent upon the confidence of the financial community and the investing public, just as the capacity of the banks is dependent upon the confidence of the depositing public. Take away confidence and what remains is only that limited degree of power or influence which mere wealth may give.

Confidence cannot be compelled; it cannot be bequeathed—or, at most, only to a very limited extent. It is and always is bound to be voluntary and personal.

I know of no other centre where the label counts for less, where the shine and potency of a great name is more quickly rubbed off if the bearer does not prove his worth, than in the great mart of finance.

Mere wealth indeed can be bequeathed, but the power of mere wealth—to paraphrase a famous dictum—has decreased, is decreasing and ought to be, and will be, further diminished.

*What, then, can and should finance do* on its own part in order to gain and preserve for itself that repute and status with the public to which it is entitled, and which in the interest of the country, as well as itself, it ought to have?

#### I. CONFORM TO PUBLIC OPINION

It must not only *do* right, but it must also be particularly careful concerning the *appearance* of its actions.

Finance should “omit no word or deed” to place itself in the right light before the people. It must carefully study and in good faith conform to public opinion.

#### 2. PUBLICITY

One of the characteristics of finance heretofore has been the cult of silence, some of its rites have been almost those of an occult science. To meet attacks with dignified silence, to maintain an austere demeanor, to cultivate an etiquette of reticence, has been one of its traditions.

Nothing could have been more calculated to irritate democracy, which dislikes and suspects secrecy and resents aloofness. And the instinct of democracy is right.

Men occupying conspicuous and leading places in finance as in every other calling touching the people's interests, are legitimate objects for public scrutiny in the exercise of their functions.

If opportunity for such scrutiny is denied, if the people's legitimate desire for information is met with silence, secrecy, impatience and resentment, the public mind very naturally becomes infected with suspicion and lends a willing ear to all sorts of gossip and rumors.

The people properly and justly insist that the same "fierce light that beats upon a throne" should also beat upon the high places of finance and commerce.

It is for those occupying such places to show cause why they should be considered fit persons to be entrusted with them, the test being not merely ability, but just as much, if not more, character, self-restraint, fair-mindedness and due sense of duty towards the public.

Finance, instead of avoiding publicity in all of its aspects, should welcome it and seek it. Publicity won't hurt its dignity. A dignity which can be preserved only by seclusion, which cannot hold its own in the market place, is neither merited nor worth having.

We must more and more get out of the seclusion of our offices, out into the rough and tumble of democracy, out—to get to know the people and get known by them.

Not to know one another means but too frequently to misunderstand one another, and there is no more fruitful source of trouble than to misunderstand one another's kind and ways and motives.

### 3. SERVICE

Every man who by eminent success in commerce or finance raises himself beyond his peers is in the nature of things more or less of an "irritant" (I use the word in its technical meaning) to the community.

It behooves him, therefore, to make his position as little jarring as possible upon that immense majority whose existence is spent in the lowlands of life so far as material circumstances are concerned.

It behooves him to exercise self-restraint and to make ample allowance for the point of view and the feelings of others, to be patient, helpful, conciliatory.

It behooves him to remember that many other men are working, and have worked all their lives, with probably as much effort and assiduous application, as much self-abnegation as he, but have not succeeded in raising themselves above mediocre stations in life, because to them has not been granted the possession of those peculiar gifts which beget conspicuous success, and to which, because they are very

rare and because they are needed for the world's work, is given the incentive of liberal reward.

He should beware of that insidious tendency of wealth to chill and isolate; he should be careful not to let his feelings, aspirations and sympathies become hardened or narrowed; lest he become estranged from his fellow men; and with this in view he should not only be approachable but should seek and welcome contact with the work-a-day world so as to remain part and parcel of it, to maintain and prove his homogeneity with his fellow men.

And he should never forget that the advantages and powers which he enjoys are his on suffrance, so to speak, during good behavior, the basis of their conferment being the consideration that the community wants his talents and his work, and grants him generous compensation—including the privilege of passing it on to his children—in order to stimulate him to the effort of using his capacities, since it is in the public interest that they should be used to their fullest extent.

He should never forget that the social edifice in which he occupies so desirable quarters, has been erected by human hands, the result of infinite effort, of sacrifice and compromise, the aim being the greatest good of society; and that if that aim is clearly shown to be no longer served by the present structure, if the successful man arrogates to himself too large or too choice a part, if, selfishly, he crowds out others, then, what human hands have built up by the patient work of many centuries, human hands can pull down in one hour of passion.

The undisturbed possession of the material rewards now given to success, because success presupposes service, can be perpetuated only if its beneficiaries exercise moderation, self-restraint, and consideration for others in the use of their opportunities, and if their ability is exerted, not merely for their own advantage, but also for the public good and the weal of their fellow men.

#### 4. STAND UP FOR CONVICTIONS AND ORGANIZE

In the political field, the ways not only of finance but of business in general have been often unfortunate and still more often ineffective.

It is in conformity with the nature of things that the average man of business, responsible not only for his own affairs, but often trustee for the welfare of others, should lean towards that which has withstood the acid test of experience and should be somewhat diffident towards experiment and novel theory.

But, making full allowance for this natural and proper disposition, it must, I believe, be admitted that business, and especially the representatives of large business, including high finance, have too often failed to recognize in time the need and to heed the call for changes from methods and conceptions which had become unsuitable to the time and out of keeping with rationally, progressive development; that they have too often permitted themselves to be guided by a tendency toward unyielding or at any rate apparently unyielding Bourbonism instead of giving timely aid in a constructive way toward realizing just and wise modifications of the existing order of things.

Apart from these considerations and leaving aside practices formerly not uncommon, but which modern laws and modern standards of morality have made impossible, it may be said generally that business is doing too much kicking and not enough fighting.

In fact, almost the only instance which I can remember of business asserting itself effectively on a large scale and by a genuine effort for its rights, its legitimate interests and its convictions was during the McKinley-Bryan campaign, in saying which I do not mean to endorse some of the methods used in that campaign.

And yet, the latent political power of business is enormous. Wisely organized for proper and right purposes it would be irresistible. No political party could succeed against it.

If this country is to take full advantage of the unparalleled opportunities which the developments of the last two years have opened up to it, if, in the severe competition which sooner or later after the close of the war is bound to set in for the world's trade, it is to hold its own, it must not only not be hampered by unwise and antiquated laws, as it now is, in certain respects, but it must be intelligently aided and fostered by the legislative and administrative powers.

Business in the leading European countries has been backed up by the respective governments in the past and will be backed up, more than ever, in the post-bellum period.

Everywhere else through the civilized world in matters of national policies as they affect business, the representatives of business are consulted and listened to with the respect which is due to expert knowledge.

It is only in America that the views of business men in general (as distinct from the agitation of particular business men or organizations having a special object to serve, such as on the occasion of tariff making in former days) are ignored, their advice brushed aside or even resented, their representatives treated as interlopers.

It is only in America that the exigencies of politics not infrequently, I might almost say habitually, are given precedence over the exigencies of business.

Objectionable methods and practices sometimes resorted to in the past by corporate interests in endeavoring to influence legislation and public opinion have been abandoned beyond resurrection.

It is only fair that with them should be abandoned the habit of politicians, sometimes politicians in very high places, to denounce as "lobbying" every organized effort of large business to oppose tendencies and propositions of legislation deemed by it inimical to the best interests of business and of the country.

It is only fair that there should be abandoned the habit of sneering at and suspecting organized efforts by business men to educate public opinion on questions affecting business and finance as improper attempts to "manufacture" or "accelerate" public opinion.

The people are fair-minded and when fully informed, almost invariably wise and right in their judgment, which cannot always be said of their representatives. When scolded, browbeaten, maligned and harassed, finance may well turn upon its professional fault-finders and challenge comparison.

Finance and financiers have had no mean share in creating organizations and institutions in this country which are models of efficiency and which men from all quarters of the globe come here to study and to admire.

It is the critics of finance and business who—to mention but a few instances—have given to the army aeroplanes that are grossly defective, to the navy submarines that are in constant trouble, who have passed laws which have driven our ships off the seas in the world's trade, and other laws which have mainly brought it about that in the year 1915 less railroad mileage has been constructed in the United States than within any one year since the Civil War.

Just as Congress, by a series of laws, has imposed burdens and costs upon ships operating under the American flag which made it impossible for capital to invest in American ships for use in the world's trade and earn a fair return in normal times, so the Federal and State Legislatures, during the past ten years, have imposed upon the railroads all kinds of exactions, restrictions and increasing costs which have had the result of arresting progress, and which threaten, after the cessation of the present period of abnormal earnings, to seriously lame that vastly important industry.

Congress has done little to indicate that it recognizes the urgency and bigness and significance of the momentous situation which confronts the country.

Nor does it seem inclined to pay serious heed to the views of business—and by that I do not mean the views of business “magnates,” but the consensus of opinion of business men in general.

Nor does past experience encourage us to believe that it will pay such heed unless impelled by the instinct of self-preservation.

Amongst the powers for which our friends of both political parties have a wholesome respect, one of the most potent is organization.

Let business then become militant, not to secure special privileges—it does not want any and does not need any—but to secure due regard for its views and its rights and its conceptions as to what measures will serve the best interests of the country, and what measures will harm and jeopardize such interests.

Without wishing to hold up the labor unions as offering a model for the spirit which should actuate us or the methods we should follow—because their class-consciousness and the

resulting conduct are sometimes extreme and often shortsighted, I would urge upon business men to cultivate and demonstrate but a little of that cohesion and discipline and subordination of self in the furtherance of the common cause, that readiness to back up their spokesmen, that loyalty to their calling and to one another which working men practice and demonstrate daily, and which have secured for their representatives the respect and fear of political parties.

Let business men range themselves behind their spokesmen, such as the United States Chamber of Commerce in Washington and the Chambers of Commerce and kindred associations in states and cities.

Let them get together now and in the future through a properly constituted permanent organization, and guided by practical knowledge, broad vision and patriotism, agree upon the essentials of legislation affecting affairs, which the situation calls for from time to time.

Let them pledge themselves to use their legitimate influence and their votes to realize such legislation and to oppose actively what they believe to be harmful lawmaking.

Let them strive, patiently and persistently, to gain the confidence of the people for their methods and their aims.

Let them meet false or irresponsible or ignorant assertion with plain and truthful explanation. Let them take their case directly to the people—as the railroads have been doing of late with very encouraging results—and inaugurate a campaign of education in sound economics, sound finance and sound national business principles.

Let business men do these things, not sporadically, under the spur of some imminent menace, but systematically and persistently.

Let them be mindful that just as the price of liberty is eternal vigilance, so eternal effort is resisting fallacies and in disseminating true and tested doctrine is the price of right lawmaking in a democracy.

## THE BOROUGH OF MANHATTAN

BY MARCUS M. MARKS, PRESIDENT

In response to your request, I am glad to call your attention to a number of important departures that have been inaugurated in the Borough of Manhattan during the past two years:

First—In the relation of our Department to the public; and

Second—In developing more effective co-operation among our own employees.

### I. RELATION OF DEPARTMENT TO THE PUBLIC.

**BOROUGH COMMISSIONS.**—In my report for 1914, I announced the formation of the Borough Advisory Commissions as a means of giving me reliable information as to the needs and desires of the citizens of various sections of the Borough, to the end that I might more intelligently and adequately represent them. It was planned that each commission should consist of twelve members, two of whom to be women. The total membership of sixteen neighborhood commissions is two hundred and one. The members are chosen as typically representative of their local districts.

The following is a list of the commissions: Fifth Avenue, Washington Heights, Riverside, West End, West Harlem, Central Park West, Chelsea, East Side, Greenwich, Murray Hill, Washington Square, Gramercy Park, Kips Bay, Yorkville, East Harlem and Broadway.

These commissions have been of great benefit to me as an investigating, consulting and advisory agency, assisting me more intelligently and effectively to perform my work as President of the Borough. Each commission advises me of the needs of its neighborhood, and where is doubt regarding the solution of an important problem, a "New England Town Meeting" is called to test the local sentiment.

Among important matters which have been studied, and on which they have advised me, are:

1. The proposed extension of bus routes;
2. The industrial zoning of the Borough;
3. The continuation of the floating baths;
4. The Central Park West street car track relocation;
5. The Schoharie watershed development;
6. The proposed settlement of the New York Central West Side problem;
7. The policy as to time of construction of the proposed new Court House.

**NEW STREET SIGNS.**—A new type of enameled street sign has been adopted, which represents a radical departure from those previously in use, and have met with most gratifying approval; in fact, so much so, that other boroughs are adopting this type for their own use. These signs indicate on each plate the name of the street, and also of the cross street. By adapting these signs to the frames which held the old signs, we have saved at least \$6,500; which has enabled us to install the new type of signs at 1,317 more street corners than otherwise.

**NEW SIGNS FOR PAVING.**—In order that newly paved streets may be left undisturbed for the longest possible time we have adopted the policy of giving to property owners, builders, public service corporations and others, who for any purpose may desire to open the streets, the amplest possible notice of our intention to lay a new pavement, and for a year following to refuse permission to make cuts therein, except in emergent cases. Under this policy we will give formal notice to the interests concerned, not only by letter as formerly, but also by announcements in the daily press through the courtesy of the newspapers and by signs placed on streets to be paved. These signs read as follows:

N O T I C E  
STREET OPENINGS  
REQUIRED FOR WATER, STEAM, GAS, OR ELECTRIC  
CONNECTIONS, SHOULD BE MADE AT ONCE  
AS THIS STREET IS ABOUT  
TO BE PAVED  
AND NO OPENING WILL BE PERMITTED  
FOR ONE YEAR  
BY ORDER  
PRESIDENT, BOROUGH OF MANHATTAN.

The issuance of such ample notice makes it possible for all necessary installations, renewals or repairs to be made in connection with all sub-surface structures before the pavement work is undertaken.

**NEW DEVELOPMENT OF PARK AVENUE AND 34TH STREET GRADE IMPROVEMENT.**—We have finally developed a plan for the solution of the Park Avenue and 34th Street grade problem. For many years there were overwhelming obstacles in the way of a settlement of this problem. We have provided for the construction of a ramp on the east side of Park Avenue, between 32nd and 34th Streets, at the same pitch as that of the present ramp on the west side. This will provide for northbound passenger and vehicular traffic on the east side of Park Avenue at this point, thus leaving the west side of the street for southbound traffic. A serious impediment to the north and southbound traffic of Park Avenue will thus be removed, and a grave condition of confusion and congestion corrected.

**MARKETS.**—Another activity outside of the regular Borough work which we have initiated was the establishment and operation of open markets. Four open markets were established by us on September 1st, 1914, without expenditure for improvements, on unused City-owned land. They catered to as many as one hundred thousand buyers in a day, and reduced the cost of living one-third in vegetables, fruits and meats.

During the early days of the open markets no fees were charged to sellers, but we early urged that modest rentals should be fixed as soon as the markets were duly established. Our belief was that high rentals would come out of the pockets of the consumers and, in addition, would reduce the number of sellers, thus minimizing competition. The great value of open markets comes from full encouragement of competition, which results in keeping prices down.

Three of the four open markets thus established have lately been adopted by the city as permanent public markets. The fourth, near the Fort Lee Ferry, will be continued as a private co-operative enterprise.

We have to the extent of our ability endeavored to make the old city markets more useful. Washington Market is being reconstructed, and we have plans to save Jefferson Market. Our next effort is to promote wholesale terminal markets, preferably through the investment of private capital.

## II. CO-OPERATION AMONG EMPLOYEES.

**SUGGESTION BOXES.**—I have instituted a policy of giving the utmost consideration to the human element in Borough Government. Through our Suggestion Boxes, recommendations looking toward improvements and economies in the administration, toward the health, comfort and welfare of Borough employes and their families have come direct to me. These have had my personal attention, and have been adopted and put into effect wherever possible, with much consequent benefit.

**BULLETINS.**—In each department there is a bulletin through which I communicate to our employes the answer to questions of importance which come to me in the Suggestion Boxes.

**JOINT TRIAL BOARD.**—For the first time in government, a system of Joint Trial Board, in which employes have equal representation, has been introduced. Formerly a department head heard charges against employes, and if he dismissed a man, the latter was by Civil Service rule debarred for two years from securing Borough or City employment in any department. The new plan gives a hearing before a Joint Trial Board of four—two representatives of the administration instead of one, and two representatives of fellow-employes selected by lot. These four advise me what disposition should be made of the case, and I take great pleasure in stating not only that I have always been in concurrence with the final recommendation of the board, but also that in eighty trials its own recommendations have been unanimous in every instance.

**WEEKLY DEPARTMENTAL LUNCHEONS.**—Shortly after coming into office, I instituted a plan of Weekly Luncheons attended by the heads of the various divisions of the Borough Government. The average attendance has been about forty. We meet at 1 o'clock, begin informal discussions at once, and

continue them throughout the luncheon, which is over at 2.15. The general topic is the improvement of the Borough and City Government. The net result has been a happier and more effective organization, and a spirit of true fellowship and co-operation has been developed.

WELFARE WORK, OUTINGS.—I appointed a Welfare Committee, through which many important measures looking to the well-being of our employes or their families, and to the *esprit de corps* of the department have been undertaken. This committee was appointed for the purpose of fostering goodwill and increasing the happiness and efficiency of the employes of the various departments or offices under my jurisdiction. The Welfare Committee has arranged outings, festivals, balls and entertainments, tickets to which were sold at twenty-five, fifty or seventy-five cents, for the exclusive purpose of securing a welfare fund. This fund has been used for the relief of needy employes or their families, funeral expenses have been met, widowed mothers and children have been aided, and for those old enough we have found work, thus enabling them to keep their homes intact. Thanksgiving and Christmas baskets have been provided in many instances. All of this is done by the employes for each other, not as charity, but as a distribution of the profits accruing from entertainments. The manhood and self-respect of the employes are thus preserved.

## PROTECTING FIFTH AVENUE

BY ROBERT GRIER COOKE  
PRESIDENT OF THE ASSOCIATION

The Fifth Avenue Association was organized ten years ago when the undirected trade expansion of the city threatened to injure permanently the Avenue's charm and beauty. It has been—and is—the section's main defence against the wrong kind of commercialism, against vandalism and destructive influences generally. It has the most representative membership of any civic body of its character in the world—corporations, firms and individuals in more than half a hundred lines of trade, practically every bank and trust company in the section, most of the district's clubs, hotels, churches, etc., and hundreds of the most influential residents of the city. Primarily, it exists, as stated, to safeguard and to improve Fifth Avenue and the Fifth Avenue district. Because, however, the Fifth Avenue section is so vitally a part of New York—because so much that is best in New York's life crystallizes in Fifth Avenue, our Association stands for New York City itself in the broadest sense. It deserves the active and permanent support not only of everyone directly interested in the Fifth Avenue district, but of everyone who feels a patriotic and personal pride in Fifth Avenue, and that means every New Yorker. It has done more to pave the way for intelligent city planning in New York than all other factors combined. It stands in the forefront of the city planning movement in America.

In an illustrated article dealing with the factory menace in Fifth Avenue, printed in the *New York Times* of December 31st, 1911, the president of The Fifth Avenue Association is quoted as declaring that "only legislation can preserve the Avenue" from its threatened destruction as the foremost-shopping and residential street of America by the rapid growth of manufacturing loft buildings and sweatshops. This was an accurate statement of the situation five years ago!

At that time the lower Avenue, between 14th and 23rd Streets, had already been irretrievably ruined for high-class retail business purposes, and the invading garment factory, with its swarms of workers, steadily creeping northward, was fastening its all-destroying tentacles on that part of the thoroughfare near 34th Street.

Every possible plan and expedient for averting the impending disaster had been tried in vain. Appealed to by merchants who saw their trade steadily falling away from them, by residents, by property holders and by the shopping public, the Association sought in a dozen different ways to turn back the advancing tide and save the Avenue to its established purposes.

The police were called upon and did heroic service in trying to cope with the noon-day throngs of factory workers that made even a semblance of retail business impossible. Even the factory heads and the workers themselves were appealed to, as part of an educational campaign to make them see the point of view of the public and of the merchants and property owners. Many conferences were held, at which the representatives of the merchants, real estate interests, labor unions and the factory owners tried to evolve some satisfactory compromise plan.

Attempts were made to arrange for lunch rooms on the roofs of loft buildings and for diverting the street crowds to the parks and to specially devised amusement centers away from the Avenue. All these efforts combined resulted in some mitigation of the evils due to the factory inroads, but the gains were only temporary. The march of industrialism, in spite of everything that could be done, was steadily northward up the Avenue.

The failure of every other plan to save the Avenue brought the Association to the final conclusion that the only means of heading off the threatened destruction of Fifth Avenue and the neighboring district lay in legislation. The first suggestion that the number of factories and of garment workers could be reduced in Fifth Avenue by restricting the height and uses of buildings was put forward at an informal gathering of members of the Association in 1909.

It was not, however, until after the disastrous Asch building fire, on the outskirts of lower Fifth Avenue, in 1911, that we saw our first opportunity to start a reform along legislative lines. In working for the creation of the State Factory Investigating Commission, which was the outcome of the agitation following this disaster, we stood upon the sound reasoning that any restrictions which might lawfully be placed on factories and which would tend to keep them out of Fifth Avenue would not only conserve property values but would also tend to conserve the lives and the health of the workers themselves by having them work under better conditions. On Monday, May 11, 1911, a dozen representatives of The Fifth Avenue Association went to Albany, and the direct result of their efforts was the almost immediate creation of the Commission.

The State Factory Investigating Commission, after its organization, did obtain legislation placing numerous restrictions on factories and factory structures, many of them at the Association's suggestion, which restrictions made it more difficult and in some cases impossible for industrial establishments to exist in Fifth Avenue. Our first real success in stemming the factory invasion, therefor, came through the laws enacted as a result of the Factory Commission's activities.

Meantime—also in 1911—the then Borough President of Manhattan, George McAneny, after consulting with the Association, appointed the Fifth Avenue Commission. The purpose of this body was to advise and consult with the Borough President on all matters pertaining to the welfare and advancement of Fifth Avenue. Arnold W. Brunner was appointed chairman of this important commission, and the president of The Fifth Avenue Association became its secretary.

Early in 1912 the Fifth Avenue Commission recommended that building heights be limited in Fifth Avenue, and within a prescribed distance east and west of it, to 125 feet. This recommendation, with which The Fifth Avenue Association concurred, was approved by the Borough President, who introduced into the Board of Estimate a resolution asking that the legislation suggested be considered by the Board of Estimate. At about the same time The Fifth Avenue Association itself officially urged that the prescribed distance east and

west of the avenue be 300 feet. Some months later the Board of Estimate provided for the appointment of a Commission on Building Heights, of which Mr. Edward M. Bassett was the chairman.

The movement to regulate building had by this time enlisted the interest and support of a number of the most important civic organizations and of many of the more far-sighted residents of the city.

In this connection it is important to refer to a City Planning Conference of civic organizations and citizens held at the Waldorf-Astoria, May 7, 1912. This conference was called by the president of The Fifth Avenue Association, and was largely attended. The president of the Association was made chairman, and Mr. H. F. J. Porter the secretary of the meeting. A sub-committee was appointed. Subsequent meetings of this committee were held and resolutions prepared for adoption by another meeting of the conference, and later these resolutions all went back to the various civic organizations for their endorsement. While a City Planning Commission, for which object the conference was called, did not result, yet the movement itself, for which credit is due to The Fifth Avenue Association, was broadly educational and gave decided impetus to the building restriction movement.

This increased interest encouraged the Building Heights Commission to hand in a very strong report, which led to the passage by the legislature, in May, 1914, of two Charter amendments. One of these granted to the Board of Estimate the power to district the city by varying height and area regulations in different sections, while the other allowed the Board to district the city according to the use of property, and to restrict the location of trades and industries.

Under the authority conferred by these amendments, the Board of Estimate appointed the Commission on Building Districts and Restrictions, upon whose report, following an exhaustive study of the whole subject, the new building regulations were finally adopted in July, 1916.

Two of the members of this important body, which took over the functions and work of the earlier commission, were members of the executive committee of The Fifth Avenue Association, and throughout the life of the commission the

Association was constantly active in furthering its purposes. Every resource at the command of the Association, legal and otherwise, was placed unreservedly at the commission's disposal. Its officers and members gave the commission freely of their time and advice at all times, useful data and statistics bearing on the problem were collected and submitted, numerous valuable photographs were taken and aid was given in many other ways.

One of the most important services rendered by the Association in connection with the work that has led up to this great building reform in New York City was the collation of ordinances and laws, and other facts bearing on the matter of regulating and restricting buildings, not only in this country, but abroad.

No better proof of the value of the services performed by the Association in the interests of the new "zoning legislation" can be offered than the following extract from a letter written last May by George B. Ford, consulting architect of the commission, in reply to a communication submitted by the Association to that body: "It (the summary of facts submitted by The Fifth Avenue Association) is a perfect mine of information and excellent testimony," says the letter. "We really couldn't have anything better suited to our purposes than your answers to our questions."

Originally proposed as a means of saving Fifth Avenue from destruction through harboring the wrong kind of occupants, the building regulation idea has grown and been added to during the seven years of its discussion until it has to-day resulted in a far broader and more comprehensive plan than was ever conceived at the outset. Not only will Fifth Avenue and the Fifth Avenue section gain in beauty, practical utility and real estate values, but the whole community will profit vastly under the new building laws in healthfulness, safety, convenience, comfort and general welfare. Indeed, the final outcome of this movement for better and more common sense regulations governing building only goes to prove anew that *"whatever helps Fifth Avenue helps New York!"*

As a second step in the great general campaign, the Association, on December 19th, 1916, launched an important new movement which, it is believed, will lead to far greater harmony

in architectural design in buildings on Fifth Avenue and its immediate zone of influence. The Board of Directors gave a luncheon to a large number of the foremost, American architects on the day named, in addition to Mr. George McAneny, Chief Engineer Lewis of the Board of Estimate, and Doctor Whitten, Secretary of the City Plan Commission. As a result of that meeting, a combination Committee of Architects, Buildings and Directors of the Fifth Avenue Association has been formed which, unofficially, will try to influence future building operations. The expectation is that eventually this movement will be continued under an official sanction.

In addition to the above, the Association has been interesting itself substantially and practically in the improvement of traffic conditions, better lighting—both street and show window—in repaving, limitation of the number of parades, the improvement of sidewalk bridges and other temporary structures, in a campaign against inappropriate and disfiguring advertising signs, the restriction of fraudulent advertising in general, and in street-cleaning methods. It obtained the ordinance prohibiting peddlers from plying their trade on the Avenue, and sees to the provision of greater protection for shoppers, sight-seers and other visitors, in the matter of beggars and other disorderly characters. The headquarters of the Association has become a clearing house of information and activity for the whole Fifth Avenue district. It is generally admitted to be the strongest and most influential civic body, devoted to the interests of a particular street or district, in the world. In conclusion, I may also state that it has taken, and will continue to take a great interest in promoting the development of other civic organizations in this city and elsewhere.

## DEPARTMENT OF WATER SUPPLY, GAS AND ELECTRICITY, NEW YORK CITY

BY WILLIAM WILLIAMS, COMMISSIONER

I have been requested to tell the readers of this Journal something about the work of the Department of Water Supply, Gas and Electricity of the City of New York. Its very title shows that it touches the everyday life of the inhabitants of this great city at many points and carries on several kinds of work of vital importance to their welfare, and yet it does not by any means indicate all of the matters over which it has jurisdiction and control. These may be briefly summarized as follows:

1. All structures and property connected with the supply and distribution of water by the city. Their estimated value, exclusive of anything pertaining to the Catskill system, is \$227,000,000.
2. The construction of all work necessary to deliver, and the delivery of, "the proper and required quantity of water with ample reserve for contingencies and future demands," both for domestic and business purposes and for fire protection.
3. Maintaining the quality of the water supply.
4. The high pressure fire service.
5. The collection of the water revenue (amounting to about \$13,000,000 per annum).
6. The inspection of water meters and their installation in places where water is furnished for business consumption.
7. The regulation of the rates charged by private water companies, and the supervision of the quality and sufficiency of their water supplies.
8. The lighting of over 2,700 miles of streets, of 10 square miles of parks and of over 2,500 public buildings.
9. The use and transmission of gas, electricity, pneumatic power and steam and the construction of electric mains, conductors and subways upon or under the streets (except

where the Public Service Commission has jurisdiction, as in the case of rapid transit lines).

10. The inspection and testing of gas with reference to its illuminating power.

11. The inspection of electric wires, currents and appliances in buildings.

12. The licensing of electricians and of operators of moving picture apparatus.

The department force consists of 2,700 employes, more or less.

At a time when the burdens resting upon New York City through taxation are very great, it will interest taxpayers to know that material economies have been effected during each of the past three years in the operation and maintenance of this department. It is now being operated and maintained at an annual cost of at least \$1,200,000 less than during 1913 (the last year of the former administration), despite the fact that a greater volume of service is being rendered. There has been an increase in the amount of water pumped daily of 41,000,000 gallons, of over 200 miles in the length of water mains and of 130 miles in the streets lighted. These economies have been effected principally through the elimination of unnecessary positions and of unnecessary work, reorganization of the smaller forces so as to increase their power for effective work, closer supervision of both the labor and materials used in department work, installation of better and more economical types of lights on streets and in public buildings, elimination of much of the wasteful use of current in public buildings, continued substitution of motor transportation for horses and wagons, concentration of stores at fewer points with establishment of standard quotas for each point of consumption, and improved general administration.

Our water supply work is varied and extensive. About 550,000,000 gallons of water are used daily in the City of New York, or in round numbers, 100 gallons per capita. Manhattan and the Bronx are supplied chiefly through Croton water, which is essentially a gravity supply, though after it reaches Manhattan Island about one-third of it requires to be pumped. On the other hand, the water supplies of Brooklyn,

Queens and Richmond are mainly pumped from the ground, collected by infiltration galleries or wells, and as a rule thereafter still further pumped to an appropriate elevation before they can be sent into the distribution mains. The early introduction of Catskill water is the event of overshadowing importance in this department just now. Vast changes will result in the methods of distributing water throughout many parts of Greater New York. For instance, all of the Brooklyn, Queens and all but one of the Staten Island pumping stations, supplying in all about 153,000,000 gallons of water daily, will be shut down, and in place thereof, Catskill water will be sent by gravity to the districts formerly served by the means of wells and Long Island streams. The department is, and for some time past has been, busily engaged in preparing to administer this great new system in conjunction with the existing Croton system. It is expected that it will be ready for use about April 1st, 1917.

The Catskill supply will result in improving somewhat the pressures throughout the whole of Manhattan, and in lower Manhattan the department contemplates so improving them that water shall thereafter be sent to the tenth stories of buildings. Now it usually reaches only the fourth stories, unless sent higher by privately installed pumps. How important this change will be is a matter that speaks for itself.

It is impracticable here to dwell on many of the interesting details of our work. One of the department's important duties is, of course, the maintenance, operation and extension of the distribution system. This work includes maintenance of a large number of distributing reservoirs, standpipes and gatehouses incidental to the system, of about 3,000 miles of water mains, of thousands of valves and of over 61,000 gates and 44,000 fire hydrants. It is not generally realized that this department has most important duties to perform in connection with the protection of the city against fire. It supplies the water at the proper pressure, and installs and maintains the mains through which it runs and the fire hydrants through which it is drawn from the mains, and in portions of Manhattan and Brooklyn operates and maintains in addition a special service known as the high pressure fire service. Through electrical pumps installed at the high pressure fire

service stations better pressure is furnished and a more efficient fire stream created than is possible through the use of fire engines, and no ordinary fire engine is used in the area served by this system.

The public hears little or nothing of the important work performed by this department in maintaining the quality of the water. A large number of men are continuously patrolling the reservoirs, streams and ponds to locate and abate possible sources of contamination and, furthermore, all water obtained from surface supplies is now sterilized by treatment with chlorine, which destroys the bacteria. The water supplied by the city is shown by analysis to be better now than it has been for many years, and it is safer to drink than most bottled waters.

The city's water revenue is collected through what is known as the Bureau of Water Register, and it is principally through this office that the public comes into actual contact with the department. The business it conducts is a heavy one, with about 355,000 consumers' accounts upon its books. The revenue collected amounts to about \$13,000,000 per annum.

It is not generally known that some 400,000 of the inhabitants of this great city residing on Long Island are served by private water companies. Of these there are nine, and by law the Commissioner of this department may "exercise superintendence, regulation and control in respect of the supply of water by such water companies, including rates, fares and charges to be made therefor." It is impracticable here to comment on this important law further than to state that the execution thereof brings to this department a great deal of work and responsibility.

The city's investment in water supply systems and the return thereon is a large and intricate subject, but the only point I desire to make at this time can be very briefly stated. The estimated value of the city's present water supply system, exclusive of the new Catskill system, was at the end of 1915 \$227,000,000, against which there remained outstanding at that date a debt of only \$91,000,000. The interest and sinking fund charges against this debt during 1915 amounted to \$4,770,000, while the cost of operating and maintaining this

system, including taxes, was \$4,541,606. Since the revenues for 1915 exceeded \$13,000,000, the income account for that year showed a surplus of nearly \$4,000,000. Thus the city appeared to be in a very comfortable position as regards the financial side of its water supply business.

What is commonly known as the Catskill system is being constructed out of corporate stock (bonds). Down to December 31, 1915, \$129,175,000 of corporate stock had been issued for this purpose. Further issues will be required before this system is completed, but the interest and sinking fund charges on the amount issued down to December 31, 1915, reach \$7,500,000. As soon as the operation and maintenance of the new system come under this department, as will probably be the case by April 1, 1917, the department's income account from its water supply business will cease to show a surplus of any kind, and, on the contrary, will show an annual deficit ranging between \$2,500,000 and \$3,000,000, unless a means can be found materially to increase the water revenues. When this happens there will be a rude awakening for many who have come to regard New York's water supply as a source of financial profit. At that time fewer people will be heard to demand that water shall be as "free as air," and more will come to view it as a most valuable commodity, to be used with care and not wasted, as now so much of it is. At that time, also, the department's efforts to bring about the abolishment of the unintelligent and discriminatory frontage rate system and the installation of meters on all services, so that all water used shall be paid for at a proper rate and that none shall escape (as many now do escape) their fair share of its cost, will be more generally appreciated than they are at the present time.

We now turn to a class of activities widely different from those hereinbefore discussed, arising out of the duties of the department in regard to the lighting of some 2,700 miles of public streets and 2,500 public buildings and structures. It can be safely said that during the last eighteen months the department has revolutionized street lighting in Greater New York. No such numerous or radical changes on a large scale have, we believe, ever occurred anywhere else during any short period. At the same time enormous economies have been

effected, the public lighting bills of New York to-day being some \$800,000 less per annum than they were three years ago. I must content myself here with indicating the two principal classes of changes made. These are, first, the elimination of all arc lamps (some 20,000 in number) with substitution therefor of the more beautiful and efficient nitrogen electric lamps; second, the elimination of over 25,000 gas lamps with substitution therefor of lighting by electricity.

The municipality uses electric current for a great many purposes outside of illumination. Here are some of them:

1. For opening some six draw-bridges over the Harlem River, five over the Gowanus Canal, one over Wallabout Creek, one over Coney Island Creek and one over Westchester Creek.
2. For driving blowers of forced draft systems so that cheaper grades of coal may be burned.
3. For operating elevators, cranes and hoists.
4. For operating washing machines, mangles, extractors and laundry irons in most of our prisons, hospitals and in some armories.
5. For driving ventilating fans in armories, schools, courts, prisons and hospitals.
6. For driving machine tools in shops of the various departments.
7. For driving vacuum cleaner systems.
8. For operating pneumatic carrier systems.
9. For operating X-ray and electro-therapeutic apparatus.
10. For charging storage batteries for electric auto trucks and searchlights on fire apparatus.
11. For producing ice.
12. For operating high pressure fire service pumps.
13. For moving picture apparatus.
14. For driving the machinery for flushing the Gowanus Canal.

This department is required to inspect "all wires, currents and electric appliances" installed in any building in the city. Argument is not necessary to show that the burden of this work must be very great. It includes seeing to it that the large electrical installations in theatres and other places where

the public gathers in great numbers are in such condition that they will not prove dangerous to life or property; and this work has been so carefully performed that during the last year no fires of importance have occurred in any theatre, moving picture establishment or other place where the public gathers in large numbers and no lives have been lost there. Electrical conditions are generally better than those in any other city of the United States.

While the foregoing constitutes but a brief summary of some of the larger features of the department's work, yet it may suffice to show that this work relates to a variety of interesting subjects, many of them of the first importance to over 5,000,000 of people.

## THE PHYSICAL BASIS OF RACE

BY MADISON GRANT

From the "Passing of the Great Race," Chapter II. (Charles Scribner's Sons.)

In the modern and scientific study of race we have long discarded the Adamic theory that man is descended from a single pair, created a few thousand years ago in a mythical Garden of Eden somewhere in Asia, to spread later over the earth in successive waves.

Many of the races of Europe, both living and extinct, did come from the East through Asia Minor or by way of African littoral, but most of the direct ancestors of existing populations have inhabited Europe for many thousands of years. During that time numerous races of men have passed over the scene. Some undoubtedly have utterly vanished, and some have left their blood behind them in the Europeans of to-day.

It is a fact, however, that Asia was the chief area of evolution and differentiation of man, and that the various groups had their main development there, and not on the peninsula we call Europe.

We now know, since the elaboration of the Mendelian Laws of Inheritance, that certain bodily characters, the so-called unit characters, such as skull shape, stature, eye color, hair color, and nose form, are transmitted in accordance with fixed mathematical laws, and, further, that various unit characters which are normally correlated, or belong together, may, after prolonged admixture with another race, pass down separately, and form what is known as disharmonic combinations. Such disharmonic combinations are, for example, a tall brunet, or a short blond; blue eyes associated with brunet hair, or brown eyes with blond hair. In modern science the meaning of the word "character" is now limited to physical instead of mental and spiritual traits as in popular usage.

The process of intermixture of unit characters has gone far in existing populations, and with the ease of modern methods of transportation this process is going much further in Europe, and in America. The immediate results of such mixture are not blends, or intermediate types, but rather mosaics of contrasted characters. Such blends, if any, as ultimately occur, are too remote to concern us here. The first result of the crossing of a pure brunet with a pure blond is to produce either pure blonds or pure brunets in certain known proportions, instead of offspring of an intermediate type; or else a third group which may be either blond or brunet, but which possesses latent characters of the contrasted type. Such latent or recessive characters often reappear in remote descendants.

In defining race in Europe it is necessary not only to consider pure groups or pure types, but also the distribution of unit characters belonging to each particular subspecies of man found there. The interbreeding of these populations has progressed to such an extent that in many cases such an analysis of physical characters is necessary to reconstruct the elements which have entered into their ethnic composition.

Sometimes we find a unit character appearing here and there as the sole remnant of a once numerous race, for example, the occasional appearance in European populations of a skull of the Neanderthal type, a race widely spread over Europe 40,000 years ago, or of the Cro-Magnon type, the predominant race 16,000 years ago. Before the fossil remains of the Neanderthal and Cro-Magnon races were studied and understood such reversional specimens were considered pathological, instead of being recognized as the reappearance of an ancient and submerged type.

Unit characters are to all intents and purposes immutable, and they do not change during the lifetime of a language or an empire. The skull shape of the Egyptian fellaheen, in the unchanging environment of the Nile Valley, is absolutely identical in measurements, proportions and capacity with skulls found in the predynastic tombs dating back more than six thousand years.

There exists to-day a widespread and fatuous belief in the power of environment, as well as of education and opportunity

to alter heredity, which arises from the dogma of the brotherhood of man, derived in turn from the loose thinkers of the French Revolution and their American mimics. Such beliefs have done much damage in the past, and if allowed to go uncontradicted, may do much more serious damage in the future. Thus the view that the negro slave was an unfortunate cousin of the white man, deeply tanned by the tropic sun, and denied the blessings of Christianity and civilization, played no small part with the sentimentalists of the Civil War period, and it has taken us fifty years to learn that speaking English, wearing good clothes, and going to school and to church does not transform a negro into a white man. Nor was a Syrian or Egyptian freedman transformed into a Roman by wearing a toga, and applauding his favorite gladiator in the amphitheatre. We shall have a similar experience with the Polish Jew, whose dwarf stature, peculiar mentality, and ruthless concentration on self-interest are being engrafted upon the stock of the nation.

Recent attempts have been made in the interest of inferior races among our immigrants to show that the shape of the skull does change, not merely in a century, but in a single generation. In 1910, the report of the anthropological expert of the Congressional Immigration Commission, gravely declared that a round skull Jew on his way across the Atlantic might and did have a round skull child, but that a few years later, in response to the subtle elixir of American institutions, as exemplified in an East Side tenement, might and did have a child whose skull was appreciably longer; and that a long skull south Italian, breeding freely, would have precisely the same experience in the reverse direction. In other words, the Melting Pot was acting instantly under the influence of a changed environment.

What the "melting pot" actually does in practice, can be seen in Mexico, where the absorption of the blood of the original Spanish conquerors by the native Indian population has produced the radical mixture which we call Mexican, and which is now engaged in demonstrating its incapacity for self-government. The world has seen many such mixtures of races, and the character of a mongrel race is only just beginning to be understood at its true value.

It must be borne in mind that the specializations which characterize the higher races are of relatively recent development, are highly unstable and when mixed with generalized or primitive characters, tend to disappear. Whether we like to admit it or not, the result of the mixture of two races, in the long run, gives us a race reverting to the more ancient, generalized and lower type. The cross between a white man and an Indian is an Indian; the cross between a white man and a negro is a negro; the cross between a white man and a Hindu is a Hindu; and the cross between any of the three European races and a Jew is a Jew.

In the crossing of the blond and brunet elements of a population, the more deeply rooted and ancient dark traits are prepotent or dominant. This is matter of everyday observation, and the working of this law of nature is not influenced or affected by democratic institutions or by religious beliefs.

As measured in terms of centuries, unit characters are immutable, and the only benefit to be derived from a changed environment and better food conditions, is the opportunity offered a race which has lived under adverse conditions, to achieve its maximum development, but the limits of that development are fixed for it by heredity and not by environment.

In dealing with European populations the best method of determining race has been found to lie in a comparison of proportions of the skull, the so-called cephalic index. This is the ratio of maximum *length* to maximum *width*, taken at the widest part of the skull above the ears. Skulls with an index of seventy-five or less, that is when the width is three-fourths or less than the length, are considered dolichocephalic, or long skulls. Skulls of an index of eighty or over are round skulls, or brachycephalic. Intermediate indices, between seventy-five and eighty, are considered mesocephalic. These are cranial indices. To allow for the flesh on living specimens, about two per cent. is to be added to the index, and the result is the cephalic index. In the following pages only long and round skulls are considered and the intermediate forms, or mesocephs, are assigned to the dolichocephalic group.

This cephalic index, though an extremely important if not the controlling unit character, is, nevertheless, but a single character and must be checked up with other somatological

traits. Normally, a long skull is associated with a long face, and a round skull with a round face.

The use of this test, the cephalic index, enables us to divide the great bulk of the European populations into three distinct subspecies of man, one northern and one southern, both dolichocephalic or characterized by a long skull, and a central subspecies which is brachycephalic, or characterized by a round skull.

The first is the Nordic or Baltic subspecies. This race is long skulled, very tall, fair skinned, with blond or brown hair and light colored eyes. The Nordics inhabit the countries around the North and Baltic Seas, and include not only the great Scandinavian and Teutonic groups, but also other early peoples who first appear in southern Europe and in Asia as representatives of Aryan language and culture.

The second is the dark Mediterranean or Iberian subspecies, occupying the shores of the inland sea, and extending along the Atlantic coast until it reaches the Nordic species. It also spreads far east into southern Asia. It is long skulled like the Nordic race, but the absolute size of the skull is less. The eyes and hair are very dark or black, and the skin more or less swarthy. The stature is stunted in comparison to that of the Nordic race and the musculature and bony framework weak.

The third is the Alpine subspecies occupying all central and eastern Europe, and extending through Asia Minor to the Hindu Kush and the Pamirs. The Armenoids constitute an Alpine subdivision and represent the ancestral type of this race which remained in the mountains and high plateaux of Anatolia and western Asia. The Alpines are round skulled, of medium height and sturdy build, both as to skeleton and muscles. The coloration of both hair and eyes was originally very dark and still tends strongly in that direction, but many light colored eyes, especially gray, are now found in the Alpine populations of western Europe.

While the inhabitants of Europe betray as a whole their mixed origin, nevertheless the three main subspecies are each found in large numbers and in great purity, as well as sparse remnants of still more ancient races represented by small groups or by individuals, and even by unit characters.

These three main groups have bodily characters which constitute them distinct subspecies of *Homo sapiens*. Each has several varieties, but for the sake of clearness the word race and not the word species or subspecies will hereafter be used nearly, but not quite exclusively. In zoology the term species implies the existence of a certain definite amount of divergence from the most closely related type, but race does not require a similar amount of difference. In man, where all groups are more or less fertile when crossed, so many intermediate or mixed types occur that the word species has too limited a meaning for wide use. Related species when grouped together constitute subgenera and genera.

The old idea that fertility or infertility of races of animals was the measure of species, is now abandoned. One of the greatest difficulties in classifying man is his perverse predisposition to mismate. This is a matter of daily observation, especially among the women of the better classes, probably because of their wider range of choice.

The cephalic index is of less value in the classification of Asiatic populations, but the distribution of round and long skulls is similar to that in Europe. The vast central plateau of that continent is inhabited by round skulls. In fact, Thibet and the western Himalayas were probably the centre of radiation of all the round skulls of the world. In India and Persia south of this central area occurs a long skull race related to Mediterranean man in Europe.

Both skull types occur, much intermixed, among the American Indians, and the cephalic index is of little value in classifying the Amerinds. No satisfactory explanation of the variability of the skull shape of this species has as yet been found, but the total range of variation of physical characters from northern Canada to southern Patagonia is less than the range of such variation from Normandy to Provence in France.

In Africa the cephalic index is also of small classification value because all of the populations are characterized by a long skull.

The distinction between the long skull and a round skull in mankind probably goes back at least to early Paleolithic times, if not to a period still more remote. It is of such great an-

tiquity that when new species or races appear in Europe at the close of the Paleolithic, between 10,000 and 7,000 years B. C., the skull characters among them are as clearly defined as they are to-day.

The fact that two distinct species of mankind both have long skulls, as have the north European and the African negro, is no necessary indication of relationship, and in that instance is merely a case of parallel specialization. The fact, however, that the Swede has a long skull and the Savoyard a round skull does prove them to be descendants of distinct subspecies.

The claims that the Nordic race is a mere variation of the Mediterranean race, and that the latter is, in turn, derived from the Ethiopian negro, rest upon a mistaken idea that a dolichocephaly in common must mean identity of origin, as well as upon a failure to take into consideration many somatological characters of almost equal value with the cephalic index. In this connection it is well to remark that this measurement, being merely a ratio, may yield identical figures for skulls differing in every other proportion and detail, as well as in absolute size and capacity.

Eye color is of very great importance in race determination, because all blue, gray, or green eyes in the world to-day came originally from the same source, namely, the Nordic race of northern Europe. This light colored eye has appeared nowhere else on earth, and is a specialization of this subspecies of man only, and is consequently one of extreme value in the classification of European races. Dark colored eyes are all but universal among wild mammals, and entirely so among the primates, man's nearest relatives. It is, therefore, an absolute certainty that all the original races of man had dark eyes.

One subspecies of man, and one alone, specialized in light colored eyes. This same subspecies also evolved light or blond hair, a character far less deeply rooted than eye color, as blond children tend to grow darker with advancing years, and populations largely of Nordic extraction, such as those of Lombardy, upon admixture with darker races, lose their blond hair more readily than their light colored eyes.

Blond hair also comes everywhere from the Nordic species, and from nowhere else. Whenever we find blondness

among the darker races of the earth we may be sure some Nordic wanderer has passed that way. When individuals of perfect blond type occur, as sometimes in Greek islands, we may suspect a recent visit of sailors from a passing ship, but when only single characters remain spread thinly, but widely, over considerable areas, like the blondness of the Atlas Berbers or of the Albanian mountaineers, we must search in the dim past for the origin of these blurred traits of early invaders.

The range of blond hair color in pure Nordic peoples runs from flaxen and red to shades of chestnut and brown. The darker shades may indicate crossing in some cases, but absolutely black hair certainly does mean an ancestral cross with a dark race—in England with the Mediterranean race.

In Nordic populations the women are, in general, lighter haired than the men, a fact which points to a blond past and a darker future for those populations. Women in all human races, as the females among all mammals, tend to exhibit the older, more generalized and primitive traits of the race's past. The male in his individual development indicates the direction in which the race is tending under the influence of variation and selection.

It is interesting to note in connection with the more primitive physique of the female, that in the spiritual sphere also, women retain the ancient and intuitive knowledge that the great mass of mankind is not free and equal, but bond and unequal.

The color of the skin is a character of importance, but one that is exceedingly hard to measure as the range of variation in Europe between skins of extreme fairness and those that are exceedingly swarthy, is almost complete. In general the Nordic race in its purity has an absolutely fair skin, and is consequently the *Homo albus*, the white man par excellence.

Many members of the Nordic race otherwise apparently pure have skins, as well as hair, more or less dark, so that the determinative value of this character is uncertain. There can be no doubt that the quality of the skin and the extreme range of its variation in color from black, brown, red, yellow to ivory-white are excellent measures of the specific or sub-generic distinctions between the larger groups of mankind, but in dealing with European populations it is sometimes dif-

ficult to correlate shades of fairness with other physical characters.

It often happens that an individual with all the Nordic characters in great purity, has a skin of an olive or dark tint, and it much more frequently happens that we find an individual with absolutely pure brunet traits in possession of a skin of almost ivory whiteness and of great clarity. This last combination is very frequent among the brunets of the British Isles. That these are, to some extent, disharmonic combinations we may be certain, but beyond that our knowledge does not lead. Owners, however, of a fair skin have always been, and still are, the objects of keen envy by those whose skins are black, yellow, or red.

Stature is another unit character of greater value than skin color, and perhaps than hair color, and is one of much importance in European classification because on that continent we have the most extreme variations of human height.

Exceedingly adverse economic conditions may inhibit a race from attaining the full measure of its growth, and to this extent environment plays its part in determining stature, but fundamentally it is race, always race, that sets the limit. The tall Scot and the dwarfed Sardinian owe their respective sizes to race, and not to oatmeal or olive oil. It is probable that the fact that the stature of the Irish is, on the average, shorter than that of the Scotch, is due partly to economic conditions, and partly to the depressing effect of a considerable population of primitive short stock.

Mountaineers all over the world tend to be tall and vigorous, a fact probably due to the rigid elimination of defectives by the unfavorable environment. In this case altitude would operate like latitude, and produce the severe conditions which seem essential to human vigor. The short stature of the Lapps and the Esquimaux may have been originally attributable to the trying conditions of an Arctic habitat, but in any event it has long since become a racial character,

So far as the main species of Europe are concerned, stature is a very valuable measure of race.

To recapitulate as to this character, the Mediterranean race is everywhere marked by a relatively short stature, sometimes greatly depressed, as in south Italy and in Sardinia, and also

by a comparatively light bony framework and feeble muscular development.

The Alpine race is taller than the Mediterranean although shorter than the Nordic, and is characterized by a stocky and sturdy build.

The Nordic race is nearly everywhere distinguished by great stature. Almost the tallest stature in the world is found among the pure Nordic populations of the Scottish and English borders, while the native British of Pre-Nordic brunet blood are, for the most part, relatively short; and no one can question the race value of stature who observes on the streets of London the contrast between the Piccadilly gentleman of Nordic race and the cockney costermonger of the old Neolithic type.

In many cases where these three European races have become mixed, stature seems to be one of the first Nordic characters to vanish, but wherever in Europe we find great stature in a population otherwise lacking in Nordic characters, we may be certain of Nordic crossing, as in the case of a large proportion of the inhabitants of Burgundy, of Switzerland, of the Tyrol, and of the Dalmatian Alps south to Albania.

These four unit characters, skull shape, eye color, hair color, and stature, are sufficient to enable us to differentiate clearly between the three main races of Europe, but if we wish to discuss the minor variations and mixtures, we would have to go much further and take up other proportions of the skull than the cephalic index, as well as the shape and position of the eyes, and the proportions and shape of the jaws and chin.

The nose is also an exceedingly important character. The original human nose was, of course, broad and bridgeless. This trait is shown clearly in new-born infants who recapitulate in their development the various stages of the evolution of the human genus. A bridgeless nose with wide flaring nostrils is a very primitive character, and is still retained by some of the larger divisions of mankind throughout the world. It appears occasionally in white populations of European origin, but is everywhere a very ancient, generalized, and low character.

The high bridge and long, narrow nose, the so-called Roman, Norman, or aquiline nose, is characteristic of the most

highly specialized races of mankind. While an apparently unimportant character, the nose is one of the very best clues to racial origin, and in the details of its form, and especially in the lateral shape of the nostrils, is a race determinant of the greatest value.

The lips, whether thin or fleshy or whether clean-cut or everted, are race characters. Thick, protruding, everted lips are very ancient traits and are characteristic of primitive races. A high instep has long been esteemed an indication of patrician type, while the flat foot is often the test of lowly origin.

The absence or abundance of hair and beard and the relative absence or abundance of body hair are characters of no little value in classification. Abundant body hair is, to a large extent, peculiar to populations of the very highest as well as the very lowest species, being characteristic of the north European as well as of the Australian savages. It merely means the retention in both these groups of a very early and primitive trait which has been lost by the Negroes, Mongols, and the Amerinds.

The Nordic and Alpine races are far better equipped with head and body hair than the Mediterranean, which is throughout its range a glabrous or relatively naked race.

The so-called red haired branch of the Nordic race has special characters in addition to red hair, such as a greenish cast of eye, a skin of peculiar texture tending either to great clarity or to freckles, and certain peculiar temperamental traits. This was probably a variety closely related to the blonds, and it first appears in history in association with them.

In the structure of the head hair of all races of mankind we find a regular progression from extreme kinkiness to lanky straightness, and this straightness or curliness depends on the shape of the cross section of the hair itself. This cross section has three distinct forms, corresponding with the most extreme divergences among human species.

While the three main European races are the subject of this book, and while it is not the intention of the author to deal with the other human types, it is necessary at this point to state that these three European subspecies, are subdivisions of one of the primary groups or subgenera of the genus *Homo* which, taken together, we must call the Caucasian for lack of a better name.

The great mass of the rest of mankind can be roughly divided into the Negroes and Negroids, and the Mongols and Mongoloids.

The former apparently originated in south Asia and entered Africa from the northeasterly corner of that continent. Africa south of the Sahara is now the chief home of this race, though remnants of Negroid aborigines are found throughout south Asia from India to the Philippines, while the very distinct black Melanesians and the Australoids lie farther to the east and south.

A third subgenus of mankind includes the round skulled Mongols and their derivatives, the Amerinds, or American Indians. This group is essentially Asiatic, and occupies the centre and the eastern half of that continent. A description of these Negroid and Mongoloid subgenera and their derivatives, as well as of certain aberrant species of man, lies outside of the scope of this work.

In the consideration of this measurement, the cross section of the hair in connection with these main subgenera, we find that a permanent relation exists, and that each of the three primary divisions of mankind is, in the shape of the cross section of its hair, differentiated from the others.

The cross section of the hair of the Negro and Negroid races is a flat ellipse with the result that all the members of this subgenus have kinky hair.

The cross section of the hair of the Mongols and their derivatives, the Amerinds, is a complete circle, and the hair of this subgenus is perfectly straight and lank.

The cross section of the hair of the so-called Caucasians, including the Mediterranean, Alpine, and Nordic subspecies, is an oval ellipse, and consequently is intermediate between the cross sections of the Negroids and Mongoloids. Hair of this structure is wavy or curly, never either kinky or absolutely straight, and is characteristic of all the European populations, almost without exception.

We have confined our discussion to the most important unit characters, but there are many other valuable aids to classification to be found in the proportions of the body and the relative length of the limbs. For an example, it is a matter of common knowledge that there occur among white

women two distinct types in this latter respect, the one long legged and short bodied, the other long bodied and short legged. All such facts have a race value as yet not understood.

Without going into further physical details, it is probable that all relative proportions in the body, the features, the skeleton, and the skull which are fixed and constant and lie outside of the range of individual variation represent dim inheritances from the past. Every human being unites in himself the blood of thousands of ancestors, stretching back through thousands of years, superimposed upon a prehuman inheritance of still greater antiquity, and the face and body of every living man offer an intricate mass of hieroglyphs that science will some day learn to read and interpret.

We shall use the foregoing main unit characters as the basis of our definition of race, and shall later call attention to such temperamental and spiritual traits as seem to be associated with distinct physical types.

We shall only discuss European populations and shall not deal with those quarters of the globe where the races of man are such that other physical characters must be called upon to provide clear definitions.

A fascinating subject would open up if we were to dwell upon the effect of racial combinations and disharmonies, as, for instance, where the mixed Nordic and Alpine populations of Lombardy retain the skull shape, hair color, and stature of the Alpine race, with the light eye color of the Nordic race, or where the mountain populations along the east coast of the Adriatic from the Tyrol to Albania have the stature of the Nordic race and an Alpine skull and coloration.

In concluding this revision of the racial foundations upon which the history of Europe has been based, it is scarcely necessary to point out that the actual results of the spectacular conquests and invasions of history have been far less permanent than those of the more insidious victories arising from the crossing of two diverse races, and that in such mixtures the relative prepotency of the various human subspecies in Europe appears to be in inverse ratio to their social value.

The continuity of physical traits and the limitation of the effects of environment to the individual only are now so thoroughly recognized by scientists that it is at most a ques-

tion of time when the social consequences which result from such crossings will be generally understood by the public at large. As soon as the true bearing and import of the facts are appreciated by law-makers, a complete change in our political structure will inevitably occur, and our present reliance on the influences of education will be superseded by a readjustment based on racial values.

Bearing in mind the extreme antiquity of physical and spiritual characters and the persistency with which they outlive those elements of environment termed language, nationality, and forms of government, we must consider the relation of these facts to the development of the race in America. We may be certain that the progress of evolution is in full operation to-day under those laws of nature which control it, and that the only sure guide to the future lies in the study of the operation of these laws in the past.

We Americans must realize that the altruistic ideals which have controlled our social development during the past century, and the maudlin sentimentalism that has made America "an asylum for the oppressed," are sweeping the nation toward a racial abyss. If the "melting pot" is allowed to boil without control, and we continue to follow our national motto and deliberately blind ourselves to all "distinctions of race, creed, or color," the type of native American of Colonial descent will become as extinct as the Athenian of the age of Pericles, and the Viking of the days of Rollo.

## THE NEW GEOLOGY

BY F. BASCOM

PROFESSOR OF GEOLOGY, BRYN MAWR

Geology, more remote than the primary sciences from the practical interests of man, is, for this reason as well as for other reasons, the youngest of the natural sciences.

The fact that the subject matter of Geology is in part of a speculative character early attracted to it philosophers and theologians, who found discussions of the origins of the Earth and of life as fascinating and as free from the trammels of scientific authority as were the legitimate topics of their peculiar province of speculation. Such cosmogonists were a hindrance to the development of Geology as a science. When as late as the close of the seventeenth century cosmogonies, entitled "A Sacred Theory of the Earth," or "A New Theory of the Earth, from its Original to the Consummation of all Things, Wherein the Creation of the World in Six Days, the Universal Deluge, and the General Conflagration, as laid down in the Holy Scriptures, are shown to be perfectly agreeable to Reason and Philosophy," were received with eulogy, the science of Geology did not exist.

Moreover, the spectacular and destructive character of certain geologic phenomena, and their occurrence at irregular intervals, not to be calculated upon by the layman, has created a popular state of mind in regard to them which is quite unlike the general acceptance, in the case of the other sciences, of the operation of natural law. Even in the present century such phenomena as earthquakes and volcanic eruptions are regarded as special acts of Providence, operating in a mysterious way to the confusion and discipline of man.

It is also obvious that Geology as a composite science, concerned with the application to a special field of all the other sciences, cannot precede in development the simple sciences. These sciences furnish in their advancement the data and laws which are the tools of Geology. The progress of Ge-

ology will always be regulated by the capacity of geologists to keep abreast of the natural sciences and of mathematics. The human mind has its limitations, and the Geologist suffers from such limitations. Rigid specialization in a narrow field of Geology will in future be forced upon the trustworthy investigator.

Finally, it was not until the conception of evolution, so essential to geologic thought, was well established that Geology could and did advance along scientific lines. This brings the advance of scientific Geology well into the nineteenth century, and it was even the latter half of the century that saw the development of such modern divisions of the science as petrology, physiography, and palæogeography.

While geologic knowledge has grown by leaps and bounds and an enormous amount of material, indirectly and directly useful to man, has been turned out, the science has until recently been open to the charge of being an inexact science. The principles enunciated and the methods in use have been largely *qualitative*: A change is already well under way involving exact *quantitative* statement.

In petrology, the science which concerns itself with the origin and history of rocks, the empirical stage; *i. e.*, the stage covering the development of exact petrographic methods for the determination of the constituents of rocks, occupied the first twenty years perhaps of the history of the science. Then followed a period when the investigator contented himself with making such exact determinations as were for the first time possible, and with reclassifying rock-types. This was all *qualitative* work, essential but incomplete because left in the qualitative stage. Rock-types were pigeon-holed together which showed the same *kind* of mineral constituents although in widely varying proportions. Rare minerals were given undue prominence in classification. Every Petrographer was a law unto himself.

It is obvious that under this method the study of the constitution and chemical history of igneous rocks did not progress along safe lines. Petrographic provinces, if such provinces existed, could not be properly characterized and delimited, and little progress could be made in the investigation of the origin and evolution of igneous rock-types.

Early in the twentieth century a *quantitative* system of mineral determination and rock classification was proposed by a group of American petrologists: Cross, Iddings, Pirsson, and Washington.

The system has suffered in some degree the fate of all radical innovations, but whatever may be said of the system of classification with its elaborate nomenclature, the quantitative method has come to stay, and petrology owes a large debt to the men who have so clearly enunciated its principles and so ably carried out the method to its logical conclusions. Now for the first time the statement, quantitative in character, of the mineral constitution of a rock-type expresses also the chemical composition, and becomes a trustworthy guide to the chemical history of the rock and to the determination of petrographic provinces.

A like change is taking place in physiography, the division of Geology which inquires into the processes which produce the surface features of the earth; *i. e.*, the landscape. In the early history of this science it has been sufficient to point out the kind of work accomplished and the method by which it is accomplished. Brilliant investigations of the origin and history of surface features have been conducted, and illuminating principles have been enunciated with the use of qualitative methods, but the time is now ripe for the application of more exact quantitative methods. Gilbert of the United States Geological Survey, who in his classical monograph on the Geology of the Henry Mountains enunciated many of the principles of this science, is also the pioneer in quantitative investigation and quantitative statement of physiographic work. Such statements can only be obtained through careful and extended experimentation, and must be presented with caution because the complex and multiple conditions under which natural processes are carried on can be but imperfectly reproduced in the laboratory. Dr. Gilbert's quantitative investigation of the transportation of debris by running water is based on a long series of experiments conducted inside and outside of the laboratory.

Cosmogony has been reborn, and with quantitative knowledge at command there has been announced a theory of "The Origin of the Earth," by Dr. T. C. Chamberlain, which, based

on prolonged investigation with the co-operation of specialists, is alike brilliant in conception, far-reaching in its effect on geologic ideas, and competent to sustain quantitative tests.

The oldest and justly the most conservative division of Geology, historical geology, embracing stratigraph and palæontology, has also felt the impulse of the new movement toward quantitative methods, and reflects it in its youngest subdivision, palæogeography, which is concerned with the investigation of the *amount* and form of land and sea during successive periods in the earth's history.

Geology has always been a science of ideas, awakening and stimulating to mind and imagination. The science will never cease to deal with fundamental conceptions of a speculative character, but the mind, mounting aloft to the circumference of the solar system or penetrating to the center of the earth, if it would reach sound conclusions, must be regulated and checked in its movements by quantitative knowledge of the matter and the forces with which it is dealing.

## TEXTILES OF NORTH AMERICAN INDIANS

BY MARY LOIS KISSELL

It is of interest that at a time when America is giving so much thought to world trade, to the development of her industries and the perfecting of manufacturing methods generally, there should come to light on this continent a bit of scientific information of purport, which is related to one of our largest industries, textile manufacture. This is a new type of spinning found among the Indians of southern British Columbia, and fully described by the writer in a recent number of *The American Anthropologist*. Industrially, it is significant as the most elementary method of spindle spinning now known since the drawing, twisting and winding are three distinct processes, thus resulting in slowest manipulation; while the huge, clumsy spindle lifted in air and held in the two hands results in the greatest amount of friction.

With this in mind, and its social import, it seems an opportune moment to call the attention of the members of the National Institute of Social Sciences who have the industrial interests of our country at heart, to the fact that, although the aboriginal peoples in North America have made valuable contributions to mechanical science in the field of textiles, none of our great museums have assembled these facts for the benefit of the textile student. Material from isolated regions has been installed in a fragmentary way by a few museums, but no systematic assemblage of textile technology and art has been attempted. The anthropological field is rich in examples of primitive invention. In North America alone there are four distinct types of spinning and half a dozen types of weaving in use by Indian textile workers, together with interesting devices for warping, for shedding, for pattern making, as well as countless untold secrets for dyeing, all most suggestive to the student of industrial science.

Inventions of any kind do not come into existence full-fledged and without stimulus. The incentive which leads to invention may be some unexplained power of Nature, some

unsolved wonder of the universe which requires understanding and applying; or some previously devised invention of man which needs perfecting, the close observation of which makes cognizant the hidden power, the more perfect contrivance. Thus no more lasting benefit could be conferred upon the American textile industry than the congregating of this material found at our very door, where the beginnings of mechanical and chemical science could be of use and an inspiration to the youthful mechanic as well as the mature worker. Any public-spirited citizen who would further and finance such an undertaking would, indeed, render a great service and prove a veritable friend to American industry.

But the undertaking should not stop with examples from the North American Indian, aboriginal and ancient peoples of other continents have much to contribute to the fund of textile lore. Spinning as it evolved during the early ages in Asia; warp-beaming as it worked itself out in ancient Europe, shedding as it expanded in inner Africa, in ancient Egypt and parts of Asia, all reveal interesting solutions to industrial problems. The methods employed in decorative pattern weaving by ancient civilizations in the Old World are just beginning to be known through excavation in the Mediterranean basin and neighboring areas; and modes of effecting textile ornament by ancient civilizations in the New World, namely, Mexico and Peru, have as yet only been touched upon.

Our American museums are responding with helpful assistance along lines of art and natural science, but have quite forgotten the student of mechanical science of textiles. Every small city abroad considers the industrial education of its youth, and supplements this with museum collections of material illustrating the industry of that locality. The United States, as a world textile manufacturer, has not kept apace in this particular, but the opportunity is at hand.

## ACTIVITIES OF MEMBERS IN

### I. ARTS AND SCIENCES

Since the establishment in Canada of a Biological Commission, about the year 1900, three Biological Stations have been inaugurated for the study of marine life, in connection with the government Department of Marine and Fisheries, viz., one at St. Andrews, New Brunswick, one at Go Home on Georgian Bay, and one at Nanaimo, British Columbia. At all three stations work of importance has been carried on. Not only has a careful and systematic study been made of the floral and faunistic character of these several stations, but many problems of great scientific and economic interest have been undertaken with good results. Among the questions thus considered may be mentioned the Parasites and Diseases of Fishes; the Food of Fishes and the causes affecting it; Fishery Bait Experiments; the Influence of Temperature; Density and Salinity of Water on the Distribution of Marine Life; the Effects of Sawdust on the Entrance of Fishes into Estuaries and of Dynamiting as a Means of Fish Capture; but especially the causes affecting the development of such important forms as the Oyster and the Lobster. It is now known that the basis of food supply for the oyster and other related forms is largely derived from the *Diatomaccae*, a group of minute microscopic Algae, which swarm in all waters, and are found abundantly in the stomachs of marine animals. Until recently these have received but little study in Canada, but during the last two or three years special attention has been given to them by Dr. L. W. Bailey, of the Biological Board at St. Andrews. He has been able to identify between three and four hundred species as found on the coast of the Maritime Provinces, especially New Brunswick and Prince Edward Island, and about three hundred from the shores of Vancouver Island. It has thus become possible for the first time to make comparisons between the Diatom flora of the Atlantic and Pacific coasts of Canada, as

well as with those of more distant regions. An interesting feature in this connection is the finding in the waters of Vancouver Island of certain very peculiar and unmistakable forms which are identical with those found by Amundsen in Antarctic waters. The finding of such forms in localities so widely separated not only in distance but by the interposition of waters which are tropical, is one of the most interesting problems of Marine Biology.

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During the past two years Melville Thurston Cook, Ph.D., Professor of Plant Pathology in Rutgers College and Plant Pathologist in the New Jersey Agricultural Experiment Station, has published a number of technical papers, bulletins and circulars on plant diseases. Among the most important of these contributions is a paper on "The Influence of the Tannin Content of the Host Plant on *Endothia Parasitica* and Related Species," in joint authorship with Mr. Guy West Wilson (Bulletin 291, N. J. Agri. Ex. Sta.), and an illustrated paper on "The Parasitic Fungi of New Jersey," in joint authorship with Mr. C. A. Schwarze.

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C. Stuart Gager, Ph.D., Director of the Brooklyn Botanic Garden, reports that during 1916 the laboratory and administration building has progressed well toward completion; a small children's building has been erected on the new site of the children's gardens; the capacity of the plant house has nearly doubled, and about six acres of new land added to the Garden in 1915, has been graded and part of it put into lawn. During the past summer a survey has been made of the diseases of the trees and shrubs of the Garden and of adjacent Prospect Park. It is expected that this survey will yield information of much practical value in connection with the treatment and control of the tree diseases of the park. It will be continued during the summer of 1917.

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Nearly seven hundred members are now enrolled, and over thirty States represented in The Art Alliance of America, of which Mrs. Ripley Hitchcock (Helen Sargent) is a vice-president. It was under Mrs. Hitchcock's guidance that in

1898 the Art Workers' Club for Women was founded, having for its object the bringing together of artists and models for the purposes of interest and support. Posing, which had hitherto not been recognized as a profession, has now been established and dignified. A club house has been maintained, with a restaurant, library, bureau for posing engagements and another for the renting of costumes.

During her long presidency of this club Mrs. Hitchcock had frequent occasion to note the inquiries made by artists themselves for aid and direction. This led, in 1914, to the founding of The Art Alliance of America, an association interested in decorative and industrial betterment, and in vocational training for workers in art. It affords a meeting ground for artists and users of art; simplifies the ways and means by which good work can reach its market; saves time and effort for producer and consumer, and is a Clearing House for art productions.

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"An art museum," says Miss Cornelia B. Sage, Litt.D., "was once considered by the general public as a building which contained uninteresting monuments of past generations, to be visited perhaps on a Sunday afternoon, since it offered recreational advantages akin to those of the botanical gardens or the zoo.

"Those in authority in the several museums throughout the country have, however, now come to realize that the public, eager for enlightenment, is taking a more active interest in the work of its institutions. This has opened a wide field for educational work. Most museums have to-day arranged systematic schedules of docent instruction in the galleries and extension work in the public schools. To fill its obligations in this branch of the work, the Albright Art Gallery at Buffalo has instituted a special department under competent direction.

"It began by recognizing the fact that the appeal of the museum located in small cities is centered, with all due recognition of the historical value of its permanent collections, in the transient exhibitions held in its galleries. It has, therefore, presented to the people of Buffalo the best current exhibitions of the year.

"Thus the exhibition of the Mary Blair collection of Gothic and Renaissance works of art, one of the finest private collections of its kind in the world, was followed, shortly after, by an exhibition of contemporary French and Belgian painting and sculpture from the Panama Pacific International Exposition, an exhibition which, still under the management of the Director of the Albright Art Gallery, is still making its rounds through several other important cities.

"The greatest success of the year was the Exhibition of Contemporary American Sculpture, held under the auspices of the National Sculpture Society, from the 17th of June to the 2nd of October. On one Sunday alone some 15,547 visitors were admitted to the galleries. The total number of admissions amounted to 150,866 for the season, a success which has inspired a number of other institutions to present similar exhibitions. Through the courtesy of the French Government and M. Leonce Benedite, Director of the Luxembourg Museum, the collection of works of art from the Luxembourg Museum, which formed a part of the French Fine Arts Exhibit at the Panama Pacific International Exposition, was presented in the Albright Art Gallery, Madame Sarah Bernhardt being present at the opening and addressing an audience of 25,000 persons."

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Referring to the development of art interests in Toledo, a writer in the *Outlook* says:

"That it now has a growing and somewhat unique art reputation is due to the initiative of one man—George W. Stevens. Its Museum was started a few years ago without the incentive of an endowment or a bequest. It possessed in its cradle, one painting, a mummy cat, six chairs, and an enthusiastic desire and a settled and invincible resolve to be simple, direct, practical, and useful. It is now housed in a beautiful white marble temple of Ionic architecture with a hundred feet frontage, standing in an oak grove in the residential section of the city. It comprises a large sculpture court, two large and four smaller galleries, club rooms, a library, and an auditorium. In the size of its apartments the building is reported as ranking next to the museums in New York City, Boston, Pittsburgh, and Chicago.

"In a sentence, Toledo, which a few years ago was neither more nor less materialistic and sordid than the average American railway and manufacturing city, is being transformed by this Museum into a city of beautiful homes inhabited by a people of great and growing artistic appreciations.

"The friend to whom I am indebted for the information on which this Knoll Paper is based truly characterizes this Museum as a monument to George W. Stevens. A letter which he wrote to my friend I venture to reproduce here, though it was not written for publication. I hope that he will pardon my printing it without asking his permission, because it is printed, not to extend his reputation, but to extend the usefulness of his inspiring example:

I have received your kind letter of April 20. It is perhaps as you say, I did not give much information regarding myself. Perhaps it was because, when I am put to that task, there never seems to be anything to say other than I was once born and am now living.

Your last paragraph suggests that there were perhaps some limitations handicapping my work. Of course we all have our handicaps, and the game is to overcome them. Perhaps I had a bit too many, inasmuch as for the last five or six years I have been quite ill, and have had to live in hospitals, beds, wheel-chairs, or crutches. Fortunately, most of my troubles have been corrected by great and good specialists, and for the past eight or ten months I have been a very active going concern. It requires much work to keep a young Museum moving properly; consequently I have been handicapped by the loss of much valuable time. Had it not been for this drawback, we might have accomplished much more. As it is, however, we are all well satisfied. My next effort will be to establish an adequate maintenance fund, following which necessary additions will be made to the building which when done will give Toledo a splendid institution for all time to come.

In closing I might suggest that perhaps, after all, the various ailments besetting us are not really handicaps in our work; if we are too healthy, we might go fishing and forget all about work.

These lines will have to be signed on the typewriter, as I am still unable to use my eyes—they have been promised to me for next week. I am, nevertheless,

Cordially and sincerely yours,

GEORGE W. STEVENS, Director,  
Toledo Museum of Art.

"Any attempt on my part to draw from this simple narrative any moral lesson or to add to it any words of praise would only impair its value. Deeds speak louder than words, and they speak a language which all can understand."

Mr. Stevens, himself, says this of certain activities of the Museum:

"The Toledo Museum of Art, while it does not neglect the adult, pays particular attention to the child—the citizen of to-morrow. As a result, at least fifty thousand children each year take some part in the varied activities of the Museum.

"The Museum's most recent appeal to the child has been made through the medium of motion pictures, which are used to supplement and emphasize various of our educational activities. For instance, the Museum conducts annually a Garden Campaign, teaching thousands of children how to beautify their home surroundings, and offering prizes for the best gardens near the home, the school or in vacant lots. While the prizes are given for landscape gardening and for the cultivation of flowers, the vegetable is not overlooked. A vegetable garden may not be artistic, but it may lead to the cultivation of flowers, one of the first steps in the creating of pleasing and artistic home surroundings. Moving picture films are used to show the planting, cultivation, growth and marketing of flowers in this country and abroad. The subjects are limitless. Most of those used are in the natural colors; one film shows the flower markets of Nice, another the tulip fields of Holland, a third the sensitive plant in action, a fourth the fly-eating plants engaged in the chase. These films and many others of a like character carry their educational and artistic messages to the young landscape gardener.

"The Museum also conducts an annual Bird Conservation Campaign. During one season the children of the town made and placed in the parks and boulevards as many as ten thousand bird houses under the direction of the Museum. They are taught to feed the birds in the winter, and to attract and care for them in summer, in return for which our feathered friends protect our gardens and the thousands of beautiful forest trees for which our city is noted. In this connection there are available many beautiful films illustrating the bird life of this and other localities.

"With moving pictures we are able to take the children to classic lands, to delve into art, archæology, science, to show them the making of rugs, pottery, textiles, and to bring before them vividly a thousand and one subjects bearing on their school work.

"Many other activities are conducted for the benefit of the child, such as story-telling hours, a clearing house for young collectors, modeling classes for little tots, classes in advanced design for older children, lectures, exhibitions of the work of children, weekly concerts which are interspersed with brief explanations. All these activities are free. In short, no excuse is overlooked which will bring a child within the circle of the Museum's influence.

"These various activities have been going on for a dozen or more years, and thousands who came as children have grown to manhood and womanhood and are taking an active and important part in the artistic development of the city."

## 2. PHILANTHROPY

In spite of the country's prosperity, the New York Association for Improving the Condition of the Poor, of which Mr. Cornelius N. Bliss, Jr., is President, expended in material relief during the year ending September 30, 1916, over \$200,000.

Seasons of prosperity do not lessen the number of dependents from widowhood, wife desertion, tuberculosis, and general sickness. The heaviest drains on the relief fund are always made by these groups. Approximately, 45 per cent of the relief expended, for instance, by the Association in the month of September was expended for the relief of widows with dependent children, and 42 per cent for families in which there was tuberculosis or other sickness.

The Home Hospital, caring for families in which one or more of the breadwinners have tuberculosis, has been doubled in size. It cares for approximately eighty families with some four hundred individuals, over two-thirds of whom have active cases of tuberculosis. Other tuberculosis families have been

placed in charge of nurses instead of lay visitors, thus securing greatly increased attention to the health side of this work.

The fresh air work includes the development of a new boys' camp, where some hundred and fifty boys were received; two new fresh air plants, one for girls and one for adults; the enlarging of the plant at Sea Breeze, now caring for four hundred individuals, and the sending of some forty-five hundred persons out of the city for vacations ranging from one to three weeks, or even longer periods.

The school lunch work was expanded, and hot lunches were served in forty-nine public schools, thus making it possible for children to get cheap and nutritious luncheons instead of spending their pennies on the contents of push-carts.

One of the happiest innovations made by the Association has been the establishment of a workshop for enfeebled old men, who otherwise would have been sent to the almshouse.

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According to the report of December 31, 1916, the New York Society for the Prevention of Cruelty to Children has acted on 13,317 complaints of cruel abuse, neglect or delinquencies, involving 39,951 children.

This Society was organized in 1874. Practically all of the laws in existence to-day for the protection of children from cruelty have been placed on the statute books of the various States as a result of the movement which began when this parent Society was established, through the efforts of the Honorable Elbridge T. Gerry, for many years its President and now its counsel.

A measure, most radical in its operation, is that which prohibits children under sixteen years of age from being taken and locked in station-houses or common jails with adult offenders. Children now taken in custody for any cause must be brought by the police to a shelter of the Society, where one exists, and the children stay there until a disposition of their cases has been made by the proper authorities. It is no longer necessary, however, to retain all these children at the shelter over night, especially in the case of the children who have come into the hands of the police during the day. A wise provision of law, one of the many drafted personally by the Honorable John D. Lindsay, President of the Society, makes

it possible for a child to be released in the care of a parent, or other proper guardian by a personal recognizance—a promise by the child's custodian to produce that child in the Children's Court on the following court day. It is most interesting to note that as yet there has been no violation of this privilege.

As many as one hundred and sixty children a day are frequently sheltered in the rooms of the Society in New York County, pending the disposition of their cases. These are brought in by their parents, the police, the Department of Public Charities, or by other societies or agencies. While many are delinquents, a very large proportion are the victims of parental cruelty and neglect. Others are the victims of criminal assaults and unspeakable crimes. It is an unfortunate fact that these crimes against children do not cease despite public education, philanthropic movements and growing church activities. The official reports of the Society show that only "eternal vigilance on the part of the Society is the price of child safety."

The children in the shelter are there on an average of a little more than six days. To supervise their care during this period an auxiliary committee was created, of which Mrs. J. Nelson Borland is chairman. This committee assumes the responsibility for the conduct of the Children's Department, where all the children are cleaned, clothed, cared for and made as happy as possible pending their appearance at court, or disposition through other agencies, the fact being recognized that at no other time in their lives are they in greater need of the wisest guidance. Nor is the supervision of these children confined to their periods of detention. The members of the committee concern themselves with the destinies of these unfortunate little ones, following them to the court, into their homes, and, so far as possible, readjusting the broken bits of their lives.

Every day those children whose cases involve juvenile delinquency or improper guardianship are sent to court for the hearing and disposition of their cases. Often they are remanded back to the Society for further investigation of what have been unfavorable home conditions. The children who thus stay for a time in the Society's rooms attend regu-

lar classes conducted in the building by the Department of Education, and the children are daily under instruction of public school teachers specialized in ungraded class work, which is of necessity that which must be carried on there. The purpose of it is to keep the children wholesomely and usefully occupied and to prevent them from discussing or brooding over their troubles. In addition to these educational features the older girls are taught cooking and sewing, and all receive the utmost attention from those in charge, and every effort is made to improve their physical, mental and moral conditions.

"The activities of the Society are so varied and important that it is difficult to give an adequate idea of them," says Mr. Ernest K. Coulter, Superintendent of the Society, in a recent report. "These include investigations at the request of the District Attorney, the courts and other official agencies; applications for Baby-Farm permits, for theatrical appearances of children, supervision of dance halls, moving picture resorts and many other similar places to which the admission of children not properly accompanied is prohibited by law. The return of nine hundred and fifty-nine lost children to their parents is one of the interesting items of the Society's work in this year."

Then there are lost or abandoned children regarding whom nothing can be learned, and whose parentage and history remain unsolved after all efforts have been made to secure identification. At one time there were one hundred and seven such cases in the Society's records. Homes are eventually found for them by the Society, or through the child-placing agencies of the children's own religious faiths, if these can be in anywise determined. Mr. George G. Haven is Secretary of the Society.

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The educational work of the Looking Forward Club, organized by Mrs. Florence M. Stowell under the Honorable John Wanamaker in New York, is carried on through lectures, talks, and classes. Both English and French are studied, and a knowledge of literature increased by books from the Club's Circulating Library. Classes have been held in dramatic expression, enabling girls to increase their power

of everyday expression. Girls who successfully pass their examination in the First Aid to the Injured classes received diplomas from the National Red Cross Society. In domestic science, cooking, dressmaking, embroidery, millinery, and home efficiency are taught. In the current topic classes timely questions are discussed. The club itself, an organization of women, by women, and for women, has several subdivisions for more complete co-operation and endeavor. A system of honor points has been established. Recreation is found in folk dancing, gymnastics and Swedish floor work and apparatus work. A vacation is spent in one of the summer camps, the club taking advantage of the Vacation Savings Fund, established by Mr. Wanamaker.

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The hospital which Mrs. H. P. Whitney, with the consent of the French Government, installed and equipped at her own expense at Juilly, lies twenty miles northeast of Paris within the war zone. The building itself—the old College of Juilly—is well adapted to the uses of the hospital. It is situated in a large and extensive park offering many attractions to the convalescent soldier, and on account of its proximity to the town of Meaux, only nine miles distant, the most seriously wounded can be transported by train and ambulance directly from the Verdun and Champagne fronts with the least possible delay.

When first installed in January, 1915, the hospital contained 150 beds, but within a few months of its opening, its usefulness having been so well proved, Mrs. Whitney was obliged to add 75 more, thus making a total of 225 beds. These are kept constantly occupied by cases requiring the greatest surgical skill. The hospital is served by well-known American surgeons, assisted by a staff of fully trained American and English nurses. President Poincaré, the American Ambassador, and other prominent men have visited the hospital, and spoken in terms of the highest praise of the excellent work accomplished in the healing of the wounded. The hospital is still being run entirely at Mrs. Whitney's expense.

### 3. SCHOOLS AND UNIVERSITIES

Discussing the "Changes in Theological Education," during the last thirty years, Samuel G. Ayres, B.D., of the Garrett Biblical Institute, says:

"In the subjects taught and the methods employed no professional school has made greater changes than the theological.

"The first seminary in America was founded in 1784, the date of the founding of the first law school. There are now more than one hundred and fifty. Most of these are insufficiently equipped for their work, and living at a poor, dying rate. About twenty-five institutions are now in the first rank of theological schools, and this only because of their own equipment or their affiliation with some university.

"A faculty of fifty would be required to teach all the subjects taught in all the theological schools of the land. Among the subjects common to them all are theology, Hebrew, Greek, sermon construction, parish work, and Bible study of various sorts.

"Theological schools are insisting more and more that their students be college graduates. The standards are being raised, and in the larger and better schools great emphasis is laid upon the practical work of the minister. A study of rural problems, city problems, and welfare work is thoroughly made. Religious education is a subject coming to the front. The introduction of the scientifically graded system in the Sunday schools has made this a necessity.

"In methods of instruction there have also been many changes. More laboratory and research work is being done, and although some schools still select instructors who have had no pedagogical training, the attitude of the best modern schools is rapidly becoming as scientific as that of the college or university. The theological library, too, is receiving more attention now than it did when, almost thirty years ago, I began my work as librarian of a theological school. Then there were very few libraries in such schools having more than 25,000 volumes. Now there are four having over 100,000 volumes each, and twelve having over 40,000 volumes. Then

only a few schools paid much attention to the books they possessed. They were uncatalogued, ill-arranged, and were neither referred to by the professors nor used by the students. At the A. L. A. Conference held last summer at Asbury Park, however, there was a section for the librarians of the theological schools.

"If the churches will not thrust men into the work before their preparation is complete, we may hope for men of learning in our pulpits—men who are equipped with a full understanding of the problems of the day, and able to propose some solution of them. They will then have the same zeal as the fathers had, and in addition will know how to direct it for the accomplishment of the highest things."

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"I have little to report," writes William Frederick Bade, Ph.D., "except that my book, 'The Old Testament in the Light of To-day' (Houghton, Mifflin Company) has run into four impressions within a year, and that the same publishers have just brought out 'A Thousand-Mile Walk to the Gulf,' which I have edited from a journal written by the late John Muir in 1867, when he made a foot-tour from Indiana to Florida. I am at work this winter in the new Harvard Library, writing the 'Life and Letters of John Muir.'"

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Baldwin-Wallace College, of which Arthur Louis Breslich is President, has entered upon a new field of activity in introducing a Normal Course to be offered by the Department of Education. The course covers a period of two years, and it includes, in addition to regular college subjects, such as English, history, mathematics and sciences, work in reviews of common branches, methods, music, playground work, psychology and education. Colleges ordinarily do not offer work of this kind, but the demand for grade teachers in the State of Ohio is so large that the State institutions alone cannot supply them.

The Cleveland Law School, which is maintained by Baldwin-Wallace College, has added another year to its curriculum. With the beginning of next year the four-year course will be required for graduation.

The departments for the training of leaders for the foreign populations of our cities will be considerably strengthened at the close of the financial forward movement, the object of which is the raising of \$1,000,000 for endowments and equipment. The College now maintains a Slavic and a German Department; an Italian Department will be added to the group as soon as the funds are available.

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Dr. Samuel P. Capen, Specialist in Higher Education in the United States Bureau of Education, has had charge of the surveys recently undertaken by the Bureau of the State higher institutions in four States. A university survey as conceived by the Bureau is an examination of the educational and financial management of a university by non-partisan experts. Such examinations have been undertaken in various parts of the country, at the request of legislatures, State boards of education, and the governing boards of individual institutions.

The Bureau's procedure in making university surveys is briefly as follows:

All available facts are gathered concerning the constitution, powers, and policies of the governing board and the administrative officers of the institution; the hours of work and the salaries of the instructing staff; the system of accounts; the budget; the distribution of expenses for educational and other services; the cost per student and per unit of instruction in different departments; the standards required for admission and for continuance on the rolls of the institution; the adequacy of the equipment and the scope of the work offered in the various divisions of the university; the extent to which the university is meeting the demands of the State for higher technical and liberal training; the activities of the institution in the direction of extension and public service; and finally, its relation to the secondary schools of the State. Other matters of peculiar local importance are often considered also. In details each survey differs somewhat from all the others because, of course, the problems of no two institutions are precisely the same. On the basis of such facts as these the Bureau endeavors to estimate the efficiency of the institution and the wisdom of its policies. Criticism is not the primary object of a university survey; nevertheless, the Bureau

has not hesitated to criticise and to recommend changes. The main purpose of a survey is to be helpful to show the officers and the public how the institution looks to outsiders and to make constructive suggestions.

The Bureau has undertaken higher educational surveys in the States of Iowa, North Dakota, Nevada, Oregon, and Washington. Dr. Capen has had charge, under the general direction of the Commissioner of Education, of all of these except the survey of the higher institutions of North Dakota.

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James E. Cutler, Ph.D., was appointed Dean of the School of Applied Social Sciences, recently established as part of the Western Reserve University. "The school has basically some new features," says Doctor Cutler, "and represents an attempt on the part of an urban university to correlate academic work with practical training in connection with departments of city and state governments and various social agencies in the community. It may be said further to represent an attempt to provide professional training in a field of work where the boundary lines between the older professions are becoming somewhat shadowy."

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Professor Harold Leslie Gibbs, who fills the chair of History and Social Science at St. Stephen's College, Annandale, N. Y., proposes for 1917 a course in social problems, with laboratory work in New York City. The aim of this department, he says, is to create in the minds of the men a sympathetic grasp of the great developments of civilization, that with that as a basis, they may acquire the power of prevision which will help them to success in whatever phase of life they follow, whether the religious or the secular.

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Dr. Parke R. Kolbe, who is serving the Association of Urban Universities as chairman of the Committee on Field Work, is particularly interested in developing the various phases of the part-time principle in education.

This new co-operative course in business training, which has been instituted at the Municipal University of Akron, of which Dr. Kolbe is President, has for some time been in successful operation. The course is under the direct adminis-

tration of Dean F. E. Ayer of the Engineering College, and follows the Cincinnati co-operative engineering plan in providing for the student alternate two-week periods of college training and actual experience in business establishments, the theory and practice being bound together by a co-ordinator, who visits students while at work and also meets them in regular class periods.

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During the spring of 1916 the Social Economy class at the University of Pittsburgh, writes Chancellor S. B. McCormick, conducted a survey of a section of the North Side, Pittsburgh. The study revealed a special need of attention to the housing of the people of the city and of providing better facilities, especially for the children. One of the possible ways of decreasing the urban congestion found to be so costly lies in making more land accessible through proper city planning and extension of transportation service. Much land which could be used lies within a very short distance of this congested district.

Various agencies of Pittsburgh which have an interest in the housing problem are organized into a Housing Conference, the president of which is a member of the faculty of the University of Pittsburgh. In the same way efforts have been consistently made by the social science department to identify the University with and give all possible aid to constructive tendencies in private philanthropy, social legislation and civic welfare.

A unique and successful experiment in civic co-operation recently promoted by the University was the Pageant of Freedom of the Pittsburgh Charter Centennial Celebration. Mr. G. M. P. Baird of the English Department was author and director, and the organization and management were in charge of other university men. The pageant symbolized a hundred years of the city's progress and foretold her future greatness.

The City Garden Association, of which the Chancellor of the University of Pittsburgh is the President, carried on a splendidly successful work during the summer of 1916. The completion of the season's work was celebrated on September 11th in a tract near one of the gardens, at which gathering some of the vegetables, especially roast corn from the gardens,

were served. All connected with the work were gratified at the success of it, and steps will be taken to enlarge the plans for the coming year.

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George E. MacLean, LL.D., since his appointment in 1913 as "Specialist in Higher Education" in the United States Bureau of Education, has visited some sixty universities and institutions of Great Britain and Ireland.

He has prepared for the Bureau a series of bulletins, entitled "Studies in Higher Education in England, Scotland, Ireland and Wales, with Suggestions for Universities and Colleges in the United States."

In response to invitations from several British institutions, he has delivered addresses on "America and the War."

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In discussing the value of a military training for boys, William Verbeck, A.M., President of Saint John's School, Manlius, N. Y., has advanced arguments to be well weighed by those who think that military training means simply getting ready for war, and not, which in reality it does mean, the being schooled in self-control, obedience and poise, developed into health, and made ready for emergencies both national and personal. From here and there we have taken the following:

"As oil lubricates the cogs of intricate machinery, dignity of military procedure smooths down the workings of school life.

"The application of the military principle to recreation, athletics and drill has an influence on every moment of study and recitation period. A boy studies with greater concentration and application; has better control of his nerve and determination; and always possesses balance and poise. \* \* \* He stands and sits erect, speaks clearly and to the point, and answers questions with the courteous military 'sir' at the end, stands in the presence of his superiors and salutes punctiliously. \* \* \* Politeness becomes a second nature, and thoughtfulness of others a habit.

"It is important, therefore, that the military system of a school be installed and superintended by the professional soldier, and not by laymen and amateurs.

"The installation of a partial military life would be harder in the long run because it would be military in fits and starts or only superficially military. \* \* \* Such a pseudo-military school would be compelled of necessity to give more time to drill than the ideal military school, and with all its drill could not make a good showing at an inspection. For this reason, I believe in two annual Government inspections, one of which is made on an unexpected date, so that the real conditions of military routine and life would be properly discovered.

"The strong and well-known military schools of to-day have the one aim and purpose of adding high character to brains, and strength to both by contributing to the building of strong bodies.

"The necessity for punishment is reduced to a minimum in the ideal military school. It is not until the voice ceases to be obeyed that we turn to severer terms. Punishments tending to shame are seldom used, because they are unequal and affect different natures differently. It is a military principle in discipline not to weaken self-respect of the offender. \* \* \*

"The military methods of command and admonition are firm, strong and dignified. The military reprimand has plenty of unspent reserve about it that carries conviction and fear with it, but it has no sputter here. Tasks that do not fit the offense are not used in the ideal school. Correction must be tempered with reason. 'Because you have disobeyed me, you shall have a longer lesson' is unreasonable, and is liable to make a cadet dread study.

"The military school should be military all day and all week. There must be a military atmosphere about the post. The lessons learned on the drill ground should be carried faithfully into every duty of school life. Every formation should be a setting up exercise, and every class section a squad drill. Every exchange of courtesies between cadets and instructors should be a lesson in military etiquette. Every ceremony should be a drill in precision.

"In such a school much less time is spent on mere drill than the public understands. Times have changed, and it has become more important to train a soldier in initiative, self-

confidence, and ability to do well all that his hands find to do; hence the training of a cadet to-day is largely along the lines of all-around handiness. To take care of himself and to keep all the rules of hygiene is more important than tactics, and neatness of his surroundings and punctiliousness to duty more important than precision in the manual of arms.

"From the sounding of reveille to the last note of taps the routine of the day is punctuated with the thought that the quicker you get there the sooner is the task performed. A cadet, in order to be fit, must be strong to meet any emergency. He must have presence of mind, quick wit and steady nerves; therefore, the body must be built up through drills and setting up exercise. He must be kept in perfect physical condition through care of the body and attention to diet. He must cultivate repose and balance, and be courteous. Chivalry, as handed down from the days of knighthood, teaches the lesson that a cadet must be generous to the weak, respectful to his seniors, and polite and courteous to all. To this end the cadet in the ideal military school is governed by an elaborate code of military courtesy, which is part of his regulations."

#### 4. PERSONAL ITEMS

The Degree of Litt.D. was awarded by Princeton in June, 1916, to John W. Baer, LL.D., President of the Occidental College, Los Angeles, California. "In teaching and preaching and in governing, a persuasive and wise adviser, and a leader in the cause of sound college training and in general Christian education of the people," ran the legend.

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*The School Bulletin*, founded and published by Charles W. Bardeen in 1874, celebrated in April its five-hundredth edition. "I started *The Bulletin*," says Mr. Bardeen, "because there were some things I wanted to say about schools without chance of blue pencil. \* \* \* From the beginning, probably nine-tenths of the matter published has been my own."

*The Bulletin* informs its readers what schools are changing teachers; what salaries are paid here and there; what new topics are being discussed at Conferences and Associations and what was said about them; what the Legislature is doing about school matters; when the next examination for State Certificates is to be held; what were the questions at the last Regents' examination and what the answers; what cases in school-law are before the courts and how they are settled; what the program is for coming Associations, how much it will cost to be present and a list with their prices of new books useful to teachers.

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The segregation of first offenders, or the keeping of arrested boys and girls away from habitual offenders until a moral recovery has been made, is the special work to which Mrs. Clarice M. Baright has devoted herself during the past year. "In many cases," she says, "I have been successful in having girls paroled in my custody, after they have been found guilty of offences which would ordinarily have sent them to the reformatories, and I am very happy to say that, after they have been given employment and found that they had somebody who was really interested in what they did, they were only too willing to 'make good.'"

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Honorable George E. Barstow reports from Barstow, Texas, that during the last twenty months a Parent-Teachers' Club has been formed in that town, and through its initiative another school building is in the course of erection to contain, when finished, a large auditorium. A Civic League and two Library Clubs have been doing active work during the past year.

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On June 20, 1916, the Franklin Institute of Philadelphia, awarded to Carleton Ellis, of Montclair, N. J., the Edward Longstreth Medal of Merit for discovering the uses of the Paint and Varnish Remover, according to the report of the Institute. "The specific purpose of this remover is to provide a harmless and efficient chemical composition for the removal of old coats of paint and varnish, preparatory to repainting or refinishing furniture, railroad cars, steamboats, etc."

The report of the Institute also says:

"It is stated in the proceedings of the District Court of the United States for the Southern District of New York, held in the Post Office Building, January 19, 1915, that 'The Ellis composition solved a problem, which prior to 1902 had baffled the efforts of those who realized the dangers and shortcomings of the existing removers, but seemed incapable of remedying them. The solution was not a mere guess, but was due to persistent effort by Ellis, who is an educated chemist of standing and reputation, who studied the problem with care and reached a solution which has solved the problem successfully. This is done without injuring the wood operated upon or endangering the health of the workman. No one before had achieved this result.'"

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An arrangement of circuits has been worked out by Montague Ferry which can be employed to serve series street lamps with less initial expense, less danger to lamp maintenance men, less chance of interruption to service, and with possibly less losses than attend the use of other series systems. It is a development of the series-multiple system, and consists briefly of a number of small series circuits, each served by a low potential transformer, the primaries of these group transformers being connected in series to a constant-voltage high-potential source of supply. For example, a system containing 220 20-volt series lamps would be split into ten isolated groups of twenty-two lamps, each served by a 400-volt transformer. The primaries of the ten transformers required would in turn be connected in series to a 5,000-volt circuit. Mr. Ferry calls this the Group System of Street Lighting, and his plans are to be carried out in Chicago.

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Professor Henry Jones Ford, of Princeton University, is preparing a systematic treatise on representative government with special reference to American problems. In 1916 Professor Ford visited Barbados, making a study of political conditions in that island. His "Woodrow Wilson—The Man and His Work," a study of American politics from a biographical standpoint, was published by the Appletons.

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Robert J. Gamble, LL.D., during the past year has been acting chairman of the South Dakota Branch of the League to Enforce Peace, and has organized the State in behalf of that organization, delivering different addresses in support of its proposals.

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During the summer of 1916 Henry Gaines Hawn conducted the Sixth Annual Session of the Summer School of the Speech Arts at Mohegan Lake, New York, using the plant of the Mohegan Lake Military Academy as headquarters; his students having gathered from all professional ranks. In October Mr. Hawn assumed his lecture courses (eighteenth year) for the Brooklyn Institute of Arts and Sciences, also organizing a special class in the Art of Play Production. Three volumes of his compilations for use in schools, with "suggestions" as to interpretation before each selection, have lately been published.

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Frederick L. Hoffman, LL.D., Statistician of the Prudential Insurance Company of America, Newark, during the early part of 1916 delivered a course of lectures on "Problems of Mortality" at Yale University, including race pathology, geographical pathology, social pathology, etc. During April-June he made an extended tour of investigation in connection with tropical mortality problems to the Isthmus of Panama, the Republic of Colombia, Costa Rica, the Island of Jamaica, and the Republic of Cuba. Addresses were delivered before the Canal Zone Medical Association and the Institute of Jamaica, which will be published during the early part of 1917, in continuation of an address on the "Sanitary Progress and Vital Statistics of Hawaii," based upon personal investigations during 1915 and issued during 1916. On the occasion of the Second Pan-American Scientific Congress a resolution introduced by Dr. Hoffman was unanimously adopted suggesting to all Pan-American countries the urgency of active and systematic efforts in behalf of malaria eradication. As a first step in this direction a national committee was organized during the year, of which Major-General W. C. Gorgas was made honorary chairman, and Dr. Rupert Blue the active chairman. In the same field of public health activities

Dr. Hoffman presented an extended brief on leprosy before the Senate Committee on Public Health and National Quarantine, based largely upon his visits to more than half a score of leper settlements throughout the world. His most important work published during 1916 was an elaborate treatise on "The Mortality from Cancer Throughout the World," in continuation of numerous papers on the cancer problem in the furtherance of the educational efforts of the American Society for the Control of Cancer. A monograph by him was issued by the United States Bureau of Mines on "Miners' Nystagmus," and a complete revision of two earlier bulletins on "The Mortality from Pulmonary Tuberculosis in Dusty Trades," by the United States Bureau of Labor Statistics, was practically completed and will probably be issued during the early part of 1917. In co-operation with the Johns Hopkins Hospital Dr. Hoffman has been carrying forward an analysis of all the autopsy records of that institution since it was established, and it is gratifying to learn that the work is nearing completion. The preliminary results, at least, will be made available during the early part of 1917.

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"My purpose if accomplished," writes the Honorable Charles B. Hubbell, M.A., chairman of the Commission on New Prisons, State of New York, "will include the razing of Sing Sing prison and erecting on its site the model receiving and distributing prison of the country." In the proposed prison arrangements will be made by which all convicts can be examined by an expert psychiatrist, who will then recommend their retention in whatever institution seems "best calculated to subserve their and society's interest." The site of the new prison will be either at Wingdale or Beekman.

Mr. Hubbell's other activities during the year have included service on the Executive Committee of the Board of Trustees of Mount Holyoke College. He has also served as President of the Village and Town Improvements Association of Williamstown, Mass., his summer home.

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"I hardly think," writes George W. Hunter, "my work of enough importance to mention, except in its larger bearings in the indirect part played by my recent texts, 'A Civic Bi-

ology,' A. B. Co., and 'Laboratory Problems in Civic Biology', A. B. Co., in the making of socialized courses in elementary biology in the secondary schools of the United States.

"Courses in elementary biology are now beginning to be planned with some notion of making the student responsible for his place in the social order. Boys and girls are beginning to realize that they as citizens have responsibilities, and are living up to them according to their rights. We teachers and writers are attempting to direct the interests and efforts along sane lines, which will make for better, cleaner and more helpful men and women in the future. We biologists are doing our bit in applying our knowledge, and thus making our students realize what can be done to help better conditions of living on the earth to-day."

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Miller Reese Hutchinson, E.E., Ph.D., was in 1915 appointed by the Secretary of the Navy as a member of and assistant to the chairman of the Naval Consulting Board of the United States, of which Mr. Thomas A. Edison is Chairman. This Board was created by the Secretary of the Navy as a preparedness measure, and at the same time to aid in stimulating inventions and inventors in the field of things appertaining to the Army and Navy of this country. Incidentally, the New Naval Consulting Board Laboratory, for which Congress appropriated \$2,000,000, will serve as a "proving ground" for all worthy and pertinent inventions.

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During the past year Professor Emory R. Johnson wrote a volume on "The Panama Canal and Commerce," which has been published by Appleton. With the assistance of Dr. T. W. Van Metre, Professor Johnson thoroughly revised and re-wrote his book on "American Railway Transportation," the new volume being entitled "Principles of Railroad Transportation." This book also was published by Appleton.

The addresses delivered by Professor Johnson were "Transportation in Relation to the Export Trade of the United States" before the Convention of American Manufacturers' Export Association; "Transportation and Foreign Trade" before the International Trade Conference; "Some Problems and Principles of Government Regulation of Railroads" before

the Second Pan-American Scientific Congress; "Probable Changes in the Foreign Trade of the United States Resulting from the European War" before the American Economic Association; and "Proposed Legislation Regarding Regulation of Ocean Carriers" before the House of Representatives Committee on the Merchant Marine and Fisheries.

The papers written by Professor Johnson included "The Stockholders' Wage," "The Prospects for Railroad Stocks," and "Railroad Valuations and Railroad Returns," all published in the Magazine of Wall Street; "War's Bearing on the Merchant Marine," published in *The Annalist*; "Government Regulation of Ocean Carriers" and "Days of Prosperity" for the National Editorial Service.

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In speaking of food sanitation, Miss Alice Lakey, Executive Secretary, American Pure Food League, has this to say: "Prevention is to-day the keynote of public health work, and food in its relation to public health has assumed new significance. One of the most important of all recent movements to safeguard the food supply is that relating to its sanitary protection. Many of the States, notably Kentucky, Indiana, Pennsylvania, North Dakota and Tennessee have enacted laws to control the sanitary conditions under which food is prepared, manufactured, sold or stored. Bakeries, canneries, confectioneries, cheese factories, slaughter houses, packing houses, hotels, restaurants, meat markets, and all other places handling foods, must be properly lighted, drained, ventilated and protected from flies. They must also be conducted with a strict regard for the health of the employes, as well as with especial regard to the purity and wholesomeness of the food produced in these places. No persons suffering from contagious diseases of any kind are permitted to work in places where food is being manufactured, packed, sold, distributed or transported.

Contamination of the food supply is the cause of much illness and, in case of milk and water, of many epidemics. ptomaine poisoning, due to eating infected pie, caused the death of a man in the State of Kansas. His wife sued the pie company and won the suit. In handing down his decision the judge stated that a manufacturer or dealer who puts hu-

man food upon the market for sale or immediate consumption does so upon the implied representation that it is fit for human consumption. Practically, he must know it is fit or take the consequences if it prove destructive.

But if the manufacturer and distributor of food have responsibilities so, also, has the consumer. Many foods protected from unsanitary conditions until delivered at the house door are spoiled in the home by careless handling or being prepared for the table by infected hands. A "typhoid Mary" has more than once contaminated the food of a household.

Laws are good, but you can no more shuffle off personal responsibility by enacting laws than you can make people good by statute. The public must be educated to understand that dirt and filth mean infection. Personal cleanliness, even surgical cleanliness in the home, should be the rule in handling everything concerned in the preparation of food.

New York City has been carrying on a distinct work for the safeguarding of the food supply of the vast army of men and women, who eat in public places, by means of an examination of the employes in the forty-five hundred hotels and restaurants of the city. In the future all these employes must show a certificate of health. Through this campaign of prevention the public health of the city will be improved. Scores of men and women were found employed in hotels and restaurants who were menaces to the health of all those who partook of the foods handled by them.

The day will come when the consumption will be stopped of food exposed on the streets. The public will be educated to refuse this food. At the present time one may see people stopping at the street stands to buy candies exposed to all the dirt and dust of the streets, not only children but adults. Rolls have been sold from an open basket at the corner of two great streets on the east side of New York, and no one stops it. Even when the basket upsets, throwing the rolls on the muddy sidewalk, the vender merely picks them up, rubs off most of the visible dirt, and sells them to the first one who will buy. New York has an ordinance designed to prevent the sale of this unsanitary food, but the great city cannot have watchers at every street corner. It is only by education of the consumers, young and old, large and small, that

such unsafe food will remain unsold. It is sometimes impossible to teach the adult even fundamental facts about food sanitation, but the school child lends a ready ear and makes an ardent disciple. Education is the most effective weapon there is in waging the war against unsanitary food. Observance of the laws governing food sanitation is a public health measure.

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For a year Miss Luisita Leland has been actively engaged as chairman of the New York City Committee of the organization known as The Fatherless Children of France. The object of this association is to care for the French children whose fathers have been killed in the war, supporting them in their own homes under the care of their mothers or nearest relatives. In less than a year this organization has established committees in thirty-six different American cities, and has raised over half a million dollars. It has cared for approximately 12,500 orphans, and has 73,000 on its list still to be provided for.

Miss Leland formed the New York City Committee which has worked to such good advantage that it alone has contributed over 25 per cent of the amount already raised. Miss Leland feels great satisfaction in the fact that not one cent of this money has been spent for expenses of any kind, but has been forwarded intact to the children for whom it was intended. The running expenses, which have been very slight, have been entirely met by the officers of the committee.

As all the money is sent to the children in their own names through the Post Office, it is possible for any person who has adopted a child to verify the amount received by visiting the town in which the child lives and examining the Post Office records. Miss Leland has been so successful in rousing interest in the neighboring towns that many local branches of the New York City Committee have been formed.

The organization has a central committee in Paris, which acts as a clearing house for the American funds, and there are fifty-two co-operating societies in France.

The names of the children are sent in to the Central Committee, Paris, and are dealt with in order as they are received, and as American money is sent over for their support. With

each child's name is sent: copy of the certificate of death of the father in the war; copy of the marriage certificate; copy of the registration of the birth of the children. The Societies are responsible for the control of the children on their books.

All orphans of the war are eligible for assistance, whose mothers have not the present means to rear a race of healthy children, between the ages of six months and sixteen years.

The money is sent by the Central Committee, by a "Mandat Postale," every three months, with the name of the American, or city, or Committee in America, who has taken charge of that child.

A letter is sent to each child—or, if too young, to its mother—explaining how to write to the American "protector," sending some personal details of their life.

Americans may write to their "child" if they desire to do so.

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Since his enforced departure with other Americans from war-ravaged Mexico, the Reverend Frank S. Onderdonk, for sixteen years a missionary in western Mexico, has been placed in charge of the Texas Mexican Mission as its superintendent, which work he has entirely reorganized. In addition to the Mexican work he has that of the Bohemian and Italian missions in the State. He has championed the cause of education among its half million Mexicans and taken a live interest in their social welfare. The Mexican, he says, is already a commercial necessity in Texas. He has largely taken the place once occupied by the negro on the farms, railroads and streets. These people are hard workers and dependable. They have large families, the education of whose children has not been looked after adequately.

We are now convinced, Mr. Onderdonk goes on to say, that in the uplift of this great number of foreigners in our midst we must prepare as many as possible of their own young people for this work. They are apt at learning, and have the facility of imparting what they know. Facts show that in the public schools the Mexican children and young people stand high in every way. They must be saved, or they will hurt and lower our own standards of morality. There are more of these peoples in the public schools of Texas than ever before in the history of the State.

When we turn to Mexico, the picture becomes dark. That a brighter day awaits that country no one should doubt. The Conference of Christian Workers which met in Cincinnati in July, 1914, composed, as it was, of leading representatives of nearly all the Protestant denominations working in Mexico, made a thorough study of the problems found in the prosecution of work in that country. One thing was definitely decided upon, namely: that there must be more unity and co-operation between these great boards. We faced in a manly fashion the fact that we had altar against altar, and were duplicating one another in every department of the work. It is to be hoped that when the clouds clear away in Mexico, and the field is re-entered, this great waste in men and money will not be repeated.

This same spirit of "Unity and Co-operation" was the keynote of the Congress on Christian Work which met in Panama in February, 1916. It was a joy to have the privilege of association with the greatest missionary leaders of North and South America and take a humble part in planning for a united, intelligent and persistent effort for the uplifting of Mexico and all Latin America.

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Mr. Truman G. Palmer has tabulated the results obtained by 500 American farmers who have adopted the rotation of sugar beet crops with their other crops, and has shown that the production of wheat before the culture of beets was 29.9 bushels per acre, and after 44.9 bushels; corn, 55.4 per acre before, 71.9 after; oats, 45.6 bushels per acre before, 68.7 bushels after; barley, 42.3 bushels per acre before, 66.3 bushels after; peas, 39.2 bushels per acre before, 67.3 bushels after; potatoes, 196.6 bushels per acre before, 285.3 bushels after; beans, 15.3 bushels per acre before, 21.4 bushels after; hay, 2.7 tons per acre before, 3.5 tons after.

Investigations formerly made by Mr. Palmer have led him to discover the value of sugar beets when grown in rotation as an enricher of the soil. European economists, he says, were a unit in declaring that sugar beet was not only the father of modern scientific agriculture, but that ever since its introduction it has formed the basis on which their entire structure of scientific agriculture has been erected.

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On August 8, 1916, Mayor Mitchel appointed a Publication Committee of five historians, to supervise the publication of the only unprinted manuscript minutes of the Common Council of the City of New York for the period 1784 to 1831. He appointed Dean Marshall Stewart Brown, of New York University; Professor Herbert L. Osgood, of Columbia University; Dr. Austin Baxter Keep, of the College of the City of New York; Dr. Edward Hagan Hall, Secretary of the American Scenic and Historic Preservation Society, and the Honorable Victor Hugo Paltsits, former State Historian of New York, and now Keeper of Manuscripts and Chief of the Division of American History in the New York Public Library. The committee organized on October 4, in Kent Hall, Columbia University, and elected Mr. Paltsits its chairman.

Attention has frequently been called to the importance of having these records printed, not only to insure their preservation, but to make them accessible both on account of their historical interest and for legal purposes, such as street-opening matters and land titles. They constitute the most important body of unpublished documents in the possession of the city and, when printed, will fill some twenty-five to thirty volumes.

During the past five years a great advance has been made throughout the United States with respect to legislation providing for the care and preservation of public archives. This quickened interest has been in a large measure due to the initiative of the Public Archives Commission of the American Historical Association, of which Mr. Paltsits is the chairman. An annual conference of archivists is conducted each year by this commission, in different sections of the country, at which the problems of archival science are presented and discussed. The conference in December, 1915, was held at Continental Hall, Washington, D. C., with an attendance of over four hundred interested persons, presided over by Senator Miles Poindexter, of the State of Washington, with the object of expediting the erection of a great National Archive Building at the Federal city. Mr. Paltsits and his associates are also engaged upon a "Primer of Archival Science for the Use of American Archivists," through which it is hoped to establish a scientific system for archives in this country. The Public

Archives Commission is now doing for archives in the United States what the pioneers of library science did for American libraries thirty or forty years ago.

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Mrs. Ernest Thompson Seton, in advancing the cause of women, has during the past year worked for suffrage by serving as Vice-President of the Connecticut State Suffrage Board, Chairman of Art Publicity of the National American Woman's Suffrage Association, running a poster competition, a slogan competition, and a social committee. To secure woman better industrial conditions she formed a committee in Connecticut for "shorter work days for women and minors." This committee was part of the New England Conference, to which, with Mrs. Winston Churchill, Mrs. Seton was appointed. The conference met in Boston last May, its purpose being to discuss measures by which uniform legislation for women and minors might be attained in all the New England States. Mrs. Seton has also aided her husband in the preparation of two large manuals for the Woodcraft League, and in attending to the business end of nationalizing this movement.

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In one of her recent utterances, Anna Howard Shaw, D.D., reminds her adherents of certain half-forgotten truths of history. "Many appeals will be made to our association," she says, "to abandon its one purpose of securing votes for women and to turn its attention and organized machinery to the real or imaginary dangers which beset us as a nation, but let us never for a moment forget the specious promises and assurances given to the pioneers who, when the Civil War took place, gave up their associations and turned their efforts to the Sanitary Commission in the belief that when the war was over the country would recognize their patriotic services and the dependence of the nation upon women in war as in peace, and reward them with the ballot, the crowning symbol of citizenship. But republics are prone to be ungrateful and to forget the services of a disfranchised class. Instead of recognizing their services and rewarding the loyal women, the cry went forth, 'This is the negroes' hour. Let the women wait,' and they are still waiting. But, as they wait, they are not blind to the fact that this nation did what no other nation

has done, when it voluntarily made its former slaves the sovereign rulers of its loyal and patriotic women.

"The greatest service suffragists can render their country and, through it, the whole world at this time, is to teach it that there is no sex in love of individual liberty and to stand without faltering by our demand for justice and equality of political rights for men and women."

Opportunity, which has suffered almost as much in the way of definition as genius itself, she thus defines: "We must never forget that *opportunity is responsibility*. It is useless to say, 'I have privileges; why place upon me responsibilities from which I shrink and which I do not desire?' Responsibilities are not the result of desire or willingness to accept them. Opportunity is responsibility, and an heroic soul cheerfully accepts the one with the other. The cry of the woman who seeks freedom from responsibility while claiming privileges and opportunities is the cry of selfishness and cowardice, and has no place in the ideals of a higher humanity."

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Professor William Trelease, LL.D., has in his genus *phoradendron* given the record of a prolonged and painstaking study of a difficult and poorly known group of mistletoes. "The book," says the *Botanical Gazette*, "includes all the features of a complete monograph in the way of discussion, keys, descriptions, citations of stations and *exsiccatae*, etc. The discussion includes such subjects as a historical account of the taxonomy of the group, an extended analysis of the characters used, the facts of parasitism, the origin of the genus, and the range of the species. The numerous plates, which are unusually clear photographic reproductions of types and authentic specimens, approach in value for reference a set of actual specimens."

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Professor Holland Thompson, of the College of the City of New York, is writing the volume on "The New South" in the "Chronicles of America," to be published by the Yale University Press. This series will attempt to tell the story of the United States in fifty volumes of convenient size.

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According to the Fifth Annual Report of the Boy Conservation Bureau, of which Mr. E. W. Watkins is Secretary, eighty-five boys, against seventy of the preceding year, were cared for in 1916. Of these, twenty were practically homeless; ten were orphans; thirty-seven half-orphans; five deserted by their fathers and left helpless; two deserted by their mothers, and four under improper guardianship. Seven had parents who were divorced. All but nine of these boys were born in this country.

The aim of this admirable Bureau is to save the needy and imperiled boy by guiding him through the character-forming years and so helping him to become a desirable citizen.

Each individual is studied. Some boys are placed in private country homes, where they can attend school and will be treated as members of well approved families. Others are found to be in need of the training of experts, who are devoting their lives to the character building of boys in industrial and farm schools. In these schools the boys receive a thorough physical, mental and moral training, and their surplus energy, after school hours, finds vent in farm work or in some industrial pursuit. Sixty-nine of the boys who have been so trained have passed on to honorable self-supporting work. The office of the Bureau is at 90 West Broadway, New York City.

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Miss M. V. Young, Chairman of the War Relief Association of Mount Holyoke College, reports that during the two years of its existence the association has raised some three thousand dollars for the benefit of war sufferers. Miss Young's other activities have included an address before the Modern Language Association of New England at their annual meeting in Boston, May, 1916, her subject being, "Old French in School and College," and one before the Teachers' Association of Hampden County, Massachusetts, at their annual meeting in Springfield. She has also been a regular contributor to educational reviews.

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**CONSTITUTION AND LIST OF MEMBERS**  
**OF THE**  
**NATIONAL INSTITUTE OF SOCIAL SCIENCES**  
**JANUARY, 1917**



# CONSTITUTION

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## I. ORIGIN AND NAME

This National Society, organized by the American Social Science Association, under a charter granted by Act of Congress January 28th, 1899, shall be known as THE NATIONAL INSTITUTE OF SOCIAL SCIENCES.

## II. OBJECT

The object of this National Institute shall be to promote the study of Social Science and to reward distinguished services rendered to humanity, either by election to the National Institute, or by the bestowal of medals or other insignia.

## III. MEMBERSHIP

Qualification for membership shall be notable achievement in the field of Social Science or services performed for the benefit of mankind.

## IV. ELECTIONS

1. Candidates for election shall be nominated by a two-thirds vote of the council, and for election shall require a two-thirds vote of the members present at a regular or special meeting, in person or by proxy.

2. Ten citizens in good standing, of any town or city in the United States may, as a reward for special services rendered by an individual, nominate him as a candidate for election or recognition. They must forward to the Council of the National Institute through the Secretary, a detailed account of the candidate's qualifications and the nature of the service rendered.

3. Honorary Members may be elected in the same manner as members under Art. I. They may wear the ribbon of the N. I. S. S., receive medals, or both, as the Council may decide.

4. Officers and Directors of the American Social Science Association shall be *ipso facto* members of the National Institute.

## V. OFFICERS

1. The Officers of the National Institute shall consist of a President, as many Vice-Presidents as the Council may from time to time nominate, a Secretary and a Treasurer, who together shall constitute the Council of the Institute.

## VI. ELECTION OF OFFICERS

1. Officers shall be elected by Ballot at the annual meeting.

2. A nominating committee of ten shall be nominated by the President previous to the election.

3. The Council may fill a vacancy at any time by a two-thirds vote.

## VII. ANNUAL MEETING

1. The annual meeting of the Institute shall be held the third Friday in January unless otherwise ordered by the Council.
2. Special meetings may be called by the President, by three members of the Council or, by petition of one-fourth of the members of the Institute.

## VIII. DUTIES OF OFFICERS

1. It shall be the duty of the President, or in his absence, the senior Vice-President, to preside at all meetings of the Institute or Council.
2. The Secretary shall keep a minute of all meetings of the Institute and of the Council, and shall be the custodian of all records.
3. The Treasurer shall take charge of all the funds of the Institute and shall make disbursements only upon the order of the Council.

## IX. ANNUAL DUES

1. The annual dues for members shall be Five Dollars.
2. Honorary members shall pay One Dollar annually, and shall receive four ribbons of the Institute.
3. The Council may at its discretion reduce the dues of any member.
4. By payment of One Hundred Dollars a member may become a life member of the Institute.

## X. EXPULSION

Any member may be expelled for misconduct by two-thirds vote of the Council.

## XI.

1. The insignia of the NATIONAL INSTITUTE OF SOCIAL SCIENCES shall be a bow of royal purple ribbon with a white bar woven at the extremity of the loops, or a metal and enamel pin of similar design.
2. Medals of membership will bear an eagle surrounded by a wreath of oak and laurel, with the name of the Institute, stellar rays making a background for the device.
3. Presentation medals shall bear the Figure of Fame resting on a Shield, holding wreaths of laurel. The shield to bear the name of the Institute. In the left hand, the figure to hold a palm branch. The reverse to show a torch with a name plate and *Dignus Honore*, the motto of the Institute.

## XII.

This Constitution may be amended, by a two-thirds vote of the Institute, upon the recommendation of the Council, or upon the request, in writing, of any five members. The Secretary shall be required to send to each member a copy of the proposed amendment, at least three weeks before the meeting at which the proposed amendment is to be considered.

## LIST OF MEMBERS

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### LIFE MEMBERS

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Bliss, Mrs. William H.	Mellon, Esq., Andrew W.
Blackmore, Esq., Henry S.	Mitchell, Esq., Edward P.
Blumenthal, Esq., George	Morgan, Miss Anne
Bourn, Esq., William B.	Parrish, Esq., Samuel L.
Carnegie, Hon. Andrew	*Parsons, Esq., John E.
Carnegie, Mrs. Andrew	Rea, Mrs. Henry R.
Caruso, Sig., Enrico	Salomon, Mrs. William
Clothier, LL.D., Morris L.	Spence, Miss Clara B.
Cutting, Hon. Robert Fulton	Stetson, Hon. Francis Lynde
Dimock, Mrs. Henry F.	Stewart, Esq., Lisenard
*Draper, Hon. Eben S.	Straight, Mrs. Willard D.
Ellsworth, Esq., James W.	Strater, Esq., Charles G.
Gammell, Esq., William	Vail, LL.D., Theodore N.
Harriman, Mrs. E. H.	Warburg, Esq., Felix M.
Harvey, Esq., George	Warren, Mrs. Whitney
Huntington, Esq., Archer M.	
Kingsbury, Miss Alice E.	
Mather, Esq., Samuel	

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\*Deceased

### LIST OF ANNUAL MEMBERS, 1917

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Abbott, Dr. Edville G. 14 Deering St., Portland, Me.	Agar, Hon. John G. 31 Nassau St., N. Y. City.
Abbott, Ph.D., Frank F. Princeton University, N. J.	Aikens, Rev. Charles T. Selinsgrove, Pa.
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Adams, Esq., Franklin P. Pan-American Union, Wash- ington, D. C.	Albee, Ph.D., Ernest Ithaca, N. Y.
Adams, Esq., Frederick U. Hastings-on-Hudson, N. Y.	Alderman, Pres. Edwin A. University of Virginia, Va.
Adams, Mrs. Harriet Chalmers The Marlborough, Washing- ton, D. C.	Aldrich, Miss Lucy T. Warwick, R. I.
Addams, Miss Jane Hull House, Chicago, Ill.	Aley, LL.D., Robert J. Orono, Maine.
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- Anthony, Esq., Richard Allard  
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- Antin, Mrs. Mary  
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- Arbuthnot, Dr. Thos. S.  
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- Astor, Esq., Vincent  
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- Avery, Mrs. Rachel F.  
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- Axson, L.H.D., Stockton  
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- Ayres, Rev. Samuel G.  
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- Babcock, Ph.D., Kendric C.  
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- Babcock, Esq., William  
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